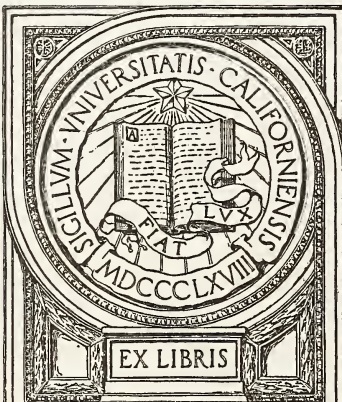




MEDICAL SCHOOL
LIBRARY



EX LIBRIS



Digitized by the Internet Archive
in 2016

NEW ORLEANS
MEDICAL AND SURGICAL
JOURNAL

Volume Eighty-Four

JULY, 1931
TO
JUNE, 1932
(Inclusive)

WETZEL PRINTING, Inc.



720-726 Perdido Street

NEW ORLEANS
Medical and Surgical Journal

Established 1844

Published by the Louisiana State Medical Society
under the jurisdiction of the following named
Journal Committee:

Roy B. Harrison, M. D., *Ex-Officio*
For one year: John A. Lanford, M. D.
For two years: S. M. Blackshear, M. D.
H. W. Kostmayer, M. D., Chairman
For three years: W. H. Seemann, M. D.,
Randolph Lyons, M. D., Secretary

EDITORIAL STAFF

John H. Musser, M. D. *Editor-in-Chief*
Leon S. Lippincott, M. D. *Editor*
Willard R. Wirth, M. D. *Editor*
H. Theodore Simon, M. D. *Associate Editor*
G. C. Anderson, M. D. *Associate Editor*
Jacob S. Ullman, M. D. *Associate Editor*
D. W. Jones, M. D. *Associate Editor*

COLLABORATORS—COUNCILORS

<i>For Louisiana</i>	<i>For Mississippi</i>
H. E. Bernadas, M. D.	J. W. Lucas, M. D.
Daniel L. Silverman, M.D.	L. L. Minor, M. D.
C. C. DeGravelles, M. D.	M. W. Robertson, M. D.
W. H. Browning, M. D.	Thomas J. Brown, M. D.
J. B. Vaughan, M. D.	Willie H. Watson, M. D.
J. H. Slaughter, M. D.	H. Lowry Rush, M. D.
D. C. Iles, M. D.	Jos. E. Green, M. D.
J. H. Landrum, M. D.	W. H. Frizell, M. D.
	D. J. Williams, M. D.

Paul T. Talbot, M. D. *General Manager*
1430 Tulane Avenue

SUBSCRIPTION TERMS: \$3.00 per year in
advance, postage paid, for the United States; \$3.50
per year for all foreign countries belonging to the
Postal Union.

*News material for publication should be received
not later than the twentieth of the month preced-
ing publication. Orders for reprints must be sent
in duplicate when returning galley proof.*

THE JOURNAL does not hold itself responsible
for statements made by any contributor.

Manuscripts should be addressed to the Editor,
1430 Tulane Avenue, New Orleans, La.

INDEX TO VOLUME EIGHTY-FOUR

July, 1931—June, 1932

— A —

Abdomen, right side, from a surgical standpoint, by Dr. Joseph F. Armstrong.....	871
Abdominal conditions, acute, treatment of, by Dr. W. H. Parsons	749
Abramson, Paul D.,—Tattooing—a brief review of its history, pathology and methods of removal	191
Adams, J. C.,—Medical treatment of sinus diseases complicated by eye disturbances	269
Adams, Jas. M.,—The standard treatment of malaria	379
Address of welcome on behalf of the local profession, by Dr. Emmett Irwin	195
Agranulocytic angina with case report, by Dr. S. F. Strain and Dr. B. B. O'Mara	34
Agranulocytic angina, by Dr. C. L. Brown	959
Allergic diseases, with special reference to those involving the respiratory tract, by Dr. John P. Henry	849
Allergy, gastro-intestinal manifestations in, by Dr. B. G. Efron	540
Alsobrook, H. B.,—One thousand cases of uterine fibroids in the negro race	317
Am I my brother's keeper?, by Dr. Glenn J. Smith	531
Anderson, Ross E.,—Gastro-intestinal disturbances in infants caused from middle ear and mastoid diseases	534
Anderson, W. H.,—The role of the general practitioner in modern medicine	180
Anesthesia, spinal, the technic and indications for, by Dr. J. Gould Gardner	953
Aneurysm, aortic, a discussion on the treatment by the method of jugulo-carotid anastomosis, by Dr. Rudolph Matas	448
Aneurysm, aortic, formation of arteriovenous fistula for relief of sequelae of, by Dr. Ambrose H. Storck	440
Angina, agranulocytic, by Dr. C. L. Brown.....	959
Annual address, by Dr. S. C. Barrow	931
Appendicitis, chronic, by Dr. E. R. Nobles.....	13
Appendix, ruptured, and its management, by Dr. J. C. Willis	518
Armstrong, Joseph F.,—The right side of the abdomen from a surgical standpoint	871
Arteriovenous fistula, formation of for relief of sequelae of aortic aneurysm, by Dr. Ambrose H. Storck	440
Arthritis, chaulmoogra oil in the treatment of, by Dr. Paul A. McIlhenny	182
Avertin, use of as a basal anesthetic, by Dr. I. M. Gage and Dr. Alton Ochsner	239

— B —

Baptist Hospital, Mississippi State, Staff Meeting	898
Baptist Hospital, Southern, Staff Meetings	479, 558, 713, 811
Barksdale, J. W.,—Induced paralysis of the diaphragm, by Dr. J. W. Barksdale and Dr. S. F. Strain	753
Barksdale, J. W.,—Radium in the treatment of certain diseases of the uterus	326
Barrow, S. C.,—Response to address of welcome	197
Barrow, S. C.,—Annual address	931
Battalora, G. C.,—Non-union of fractures	879
Beach, T. R.,—Hypertension	362
Bertucci, Emile A.,—Some observations with dichlorobenzene terpenolic compound vapor in hemoptysis	620
Bethea, Oscar W.,—Inaccuracy of clinical thermometers	130
Bethea, Oscar W.,—Memorial service	235
Biliary passage, congenital obstruction (atresia) of, with report of case, by Dr. H. Carroll McLeod	868
Blood transfusion, by Dr. Samuel E. Field.....	764
Blum, Henry N.,—Information that can be furnished by the ophthalmologist	464
Book Reviews	92, 160, 223, 307, 422, 509, 583, 659, 737, 839, 928, 992
Bowie, E. R.,—(joint author),—see Samuel, T. C.	760
Brominol, emulsified light, pyelographic studies with, by Dr. W. A. Reed and Dr. W. F. Henderson	876
Bronchography, by Dr. Victor M. Maxwell	549

Brown, C. L.,—Agranulocytic angina	959
Browne, Donovan C.,—Headaches of gastro-intestinal origin	680
Bruns, H. Dickson,—A word concerning Elliot's trephine operation	671
Buchanan, C. C.,—Eye symptoms and changes resulting from sinus disease and treatment of same	275
Bullitt, James B.,—State medicine—Annual Oration	227
Butler, Willis P.,—The Louisiana criminal code relative to the functioning of the state lunacy commission	795
Butterworth, W. W.,—The widening horizon of child health	663
Eaton, anastomosis, new, for gastro-intestinal surgery, by Dr. J. T. Nix	332

— C —

Cancer control program, by Dr. J. W. Cox	455
Cancer of the skin, diagnosis and treatment of, by Dr. M. D. Rateliff	550
Cancer research, newer developments in, by Dr. Charles F. Geschickter	95
Cancer—Physician's responsibility in the reduction of the mortality of, by Dr. Urban Maes	585
Carcinoma of the lip,—radium treatment, by Dr. M. T. Van Studdiford	252
Carroll, Charles F.,—The uses of sodium ethyl-1 methyl-butyl-barbiturate (pentobarbital-sodium) in medicine and surgery	375
Case Report and Clinical Suggestions	39, 130, 198
Chairman's Address, by Dr. Lucien S. Gaudet	611
Charrelois, Fern,—The surgical treatment of sinus diseases complicated by eye disturbances	272
Charity Hospital Medical Staff Meetings	557, 804, 887
Charity Hospital, Natchez	204
Charity Hospital, New Orleans, general staff meeting	479
Charity Hospital Surgical Staff Meetings	556, 632, 711, 804, 887, 971
Chaulmoogra oil in the treatment of arthritis, by Dr. Paul A. McIlhenny	182
Child health, widening horizon of, by Dr. W. W. Butterworth	663
Clarke, Walter,—The burden of syphilis and gonorrhea in New Orleans	163
Commission, lunacy, Louisiana criminal code relative to functioning of, by Dr. Willis P. Butler	795
Congenital obstruction (atresia) of biliary passage with case report, by Dr. H. Carroll McLeod	868

Correspondence from:

Dr. Rudolph Matas	71
Dr. T. A. Heath	71
Dr. F. F. Young	148
Cox, J. W.,—The cancer control program	455
Crawford, J. A.,—Cranny magic	627
Cully, John C.,—Medical education in Mississippi	935
Cystocele and prolapse, by Dr. Hilliard E. Miller	687

— D —

Danna, Joseph A.,—An example of what surgery can do in saving a certain group of cases of pulmonary tuberculosis as illustrated by a case report	513
Dannreuther, Walter T.,—The operative correction of uterine retractions	311
Diabetes and heart disease, by Dr. I. I. Lemann	612
Diaphragm, induced paralysis of, by Dr. J. W. Barksdale and Dr. S. F. Strain	753
Dichlorobenzene terpenolic compound vapor in hemoptysis, some observations, by Dr. Emile A. Bertucci	620
Diphtheria immunization, newer conception of, by Dr. Robert A. Strong	743
Diphtheria immunization, the economic phase in New Orleans, by Dr. John Signorelli	747
Disability following fractures, by Dr. King Rand	791
Dislocations, recurrent, of the shoulder, by Dr. E. D. Fenner	607
Diverticulitis of the colon with special reference to the sigmoid, by Dr. B. C. Garrett	5
Douglas, Robt. G.,—The modern methods of treatment of menigo-myo-encephalitis	262

— E —

Editorials	51, 141, 202, 281, 391, 477, 554, 630, 709, 802, 885, 969
Education, medical, in Mississippi, by Dr. John C. Culley	935
Efron, B. G.,—Gastro-intestinal manifestations in allergy	540
Elliot's trephine operation, a word concerning, by Dr. H. Dickson Bruns	671

Encephalitis, menigo-mycelo, modern methods of treatment, by Dr. Robt. G. Douglas	262
Epilepsy, post-encephalitic, with a report of two cases in childhood, by Dr. Emile Naef	124
Esophageal and gastric varices, by Dr. A. E. Gordin	865
Evans, Joseph P.,—The importance of prenatal care	545
Eye injuries, industrial, by Dr. James B. Stanford	782
Eye symptoms and changes resulting from sinus disease and treatment of same, by Dr. C. C. Buchanan	275

— F —

Feet, painful, by Dr. Earl Hyman	861
Fenner, E. D.,—Acute and chronic osteomyelitis	105
Fenner, E. D.,—Recurrent dislocations of the shoulder	607
Fever, undulant, a public health problem, by Dr. P. A. Kibbe	187
Fibroids or pregnancy, by Dr. P. Graffagnino	589
Fibroids, uterine, one thousand cases in the negro race, by Dr. H. B. Alsobrook	317
Field, Samuel E.,—Blood transfusion	764
Finlay, R. C.,—Roentgen ray examination of the stomach	625
Fossier, A. E.,—Doctor Frederick Loeber: 1839-1901	667
Fossier, A. E.,—The mariahuana menace	247
Fractures, disability following, by Dr. King Ranl	791
Fractures, non-union of, by Dr. G. C. Battalora	879
Fractures, patella, results of work done for past thirty-six years, with conclusions, by Dr. E. Denegre Martin	846
French Hospital Staff Meetings	396, 482, 557, 635, 714, 811, 887

— G —

Gage, I. M.,—The use of avertin as a basal anesthetic, by Dr. I. M. Gage and Dr. Alton Och-sner	239
Gardner, J. Gould,—The technic and indications for spinal anesthesia	953
Garrett, B. C.,—Diverticulitis of the colon with special reference to the sigmoid	5
Gastric and esophageal varices, by Dr. A. E. Gordin	865
Gastro-intestinal disturbances in infants caused from middle ear and mastoid diseases, by Dr. Ross E. Anderson	534
Gastro-intestinal manifestations in allergy, by Dr. B. G. Efron	540
Gastro-intestinal surgery, a new anastomosis button for, by Dr. J. T. Nix	332
Gaudet, Lucien S.,—Chairman's address	611
Geschickter, Charles F.,—Newer developments in cancer research	95
Goiter, use of iodine in, by Dr. E. R. Nobles	769
Gonorrhea and syphilis, the burden of, in New Orleans, by Dr. Walter Clarke	163
Gooch, John B.,—The etiology and prognosis of sinusitis	966
Gooze, J. T.,—Some of the problems challenging the doctors and health officers in Mississippi ..	178
Gordin, A. E.,—Esophageal and gastric varices	865
Gordon, R. L.,—Early syphilis: its diagnosis and treatment	788
Graffagnino, P.,—Pregnancy or fibroids	589
Granny magic, by Dr. J. A. Crawford	627
Guthrie, J. Birney,—The diagnosis and significance of splenic enlargement	340
Gynecology, conservative, its rationale and its end results, by Dr. C. Jeff Miller	117

— H —

Harris, William H.,—Experimental typhoid fever with consideration of toxins and endotoxins ..	1
Hay fever a specialty, by Dr. W. P. Lambeth	23
Headaches of gastro-intestinal origin, by Dr. Donovan C. Browne	680
Health work, county, appraisal of, based on reduction of morbidity and mortality, by Dr. Felix J. Underwood	174
Heart disease and the diabetic, by Dr. I. I. Lemann	612
Hebert, L. A.,—Bacteriology and pathology of undulant fever	259
Hemoptysis, some observations with dichlorobenzene terpenolic compound vapor in, by Dr. Emile A. Bertucci	620
Henderson, W. F.,—(joint author),—see Reed, W. A.	876
Henry, John P.,—Allergic diseases, with special reference to those involving the respiratory tract	849

History taking, by Dr. A. H. Little	388
Hixon Memorial Hospital Staff Meetings	393, 482, 636
Hobson, Sam,—Infectious mononucleosis.....	841
Hospital Staff Transactions	53, 143, 204, 283, 393, 479, 556, 632, 711, 804, 887, 971
Hotel Dieu Staff Meetings	58, 480, 633, 712, 806, 890, 976
Hyman, Earl—Painful feet	861
Hypertension, by Dr. T. R. Beach	362

— I —

Impotency, relation to verumontanitis, by Dr. L. B. Moseley	523
Index, Schilling, by Dr. H. T. Nicolle	114
Industrial eye injuries, by Dr. James B. Stanford	782
Iodin, use in goiter, by Dr. E. R. Nobles	769
Irwin, Emmett,—Address of welcome on behalf of the local profession	195

— K —

Kibbe, P. A.,—Undulant fever—a public health problem	187
Kimbell, Isham,—The practice of neuro-psychiatry in general hospitals	525
King's Daughters' Hospital, Greenville	204, 558, 636, 714, 900, 972

— L —

Lacrymal apparatus, excretory portion, treatment of, by Dr. W. S. Sims	472
Lady of the Lake Sanitarium Clinico-Pathological Meetings	56
Lambeth W. P.,—Hay fever a specialty	23
LeDoux, Lucien A.,—Senile vulvitis and vulvo-vaginitis, with special reference to trichomonad vaginalis infection	121
Lemann, I. I.,—Heart disease and the diabetic	612
Little, A. H.,—History taking	388
Loeber, Dr. Frederick—1839, 1901, by Dr. A. E. Fossier	667
Looking into the future, by Dr. Alton Ochsner	945
Lorio, Cecil,—A case of neurologic interest	198
Louisiana criminal code relative to the functioning of the state lunacy commission, by Dr. Willis P. Butler	795
Louisiana State Medical Society News	63, 146, 209, 288, 399, 488, 564, 640, 717, 814, 904, 980
Lunacy commission, state, Louisiana criminal code relative to functioning of, by Dr. Willis P. Butler	795

— M —

Maes, Urban,—The physician's responsibility in the reduction of the cancer mortality	585
Malaria: cause, misdiagnosis, treatment and prevention, by Dr. G. H. Wood	31
Malaria, the standard treatment of, by Dr. Jas. M. Adams	379
Malignancy, roentgen ray in the diagnosis of, by Dr. E. C. Samuel and Dr. E. R. Bowie	760
Mariahuana menace, by Dr. A. E. Fossier	247
Marine Hospital, series of case reports from a clinical meeting	39
Martin, E. Denegre,—Results of work done on fractures of patella for past thirty-six years, with conclusions	846
Mastoids, of infants, treatment of infections of when there is no sign of destruction present, with fractional doses of the roentgen rays, by Dr. Amedee Granger	111
Matas, Rudolph,—Noguchi, by Gustav Eckstein, a review	131
Matas, Rudolph,—On the treatment of aortic aneurysm by the method of jugulo-carotid anastomosis: a discussion	448
Mattingly, C. Walter,—Acute perforation of peptic ulcers	18
Maxwell, Victor M.,—Bronchography	547
Medical education in Mississippi, by Dr. John C. Culley	935
Memorial service, by Dr. Oscar W. Bethea	235
Menville, Leon J.,—The diagnostic importance of roentgenology in medicine	674
Middle ear and mastoid diseases, gastro-intestinal disturbances caused from, by Dr. Ross E. Anderson	534
Miller, C. Jeff.,—Conservative gynecology: its rationale and its end results	117
Miller, Hilliard E.,—Cystocele and prolapse	687
Mississippi, some of the problems challenging the doctors and health officers in, by Dr. J. T. Gooze	178

Mississippi State Baptist Hospital Staff Meeting	974
Mississippi State Hospital Staff Meetings	53, 898
Mississippi State Medical Association News 72, 149, 212, 294, 406, 494, 571, 645, 723, 820, 910, ...	985
Mononucleosis, infectious, by Dr. Sam Hobson	841
Monte, L. A.,—(joint author),—see Musser J. H.	475
Moseley, L. B.,—Verumontanitis: its relation to impotency	523
Musser, J. H.,—Abortive poliomyelitis, report of two cases by Dr. J. H. Musser and Dr. L. A. Monte	475
Myeloma, multiple, report of a case, by Dr. Willard R. Wirth	698
— Mc —	
McIlhenny, Paul A.,—Chaulmoogra oil in the treatment of arthritis	182
McLeod, H. Carroll,—Congenital obstruction (atresia) of biliary passage with report of case ..	868
McMillan, Thomas M.,—Rheumatic fever and rheumatic heart disease, by Dr. Thomas M. McMillan and Dr. Charles F. Nichols	346
— N —	
Naef, Emile,—Post-encephalitic epilepsy, with a report of two cases in childhood	124
Neurological case of interest, by Dr. Cecil Lorio	198
Neuro-psychiatry, practice in general hospitals, by Dr. Isham Kimbell	525
Nichols, B. H.,—Some observations on roentgenography of the skull	429
Nicholle, H. T.,—The Schilling index	114
Nichols, Charles F.,—(joint author),—see McMillan, Thomas M.	346
Nix, J. T.,—A new anastomosis button for gastro-intestinal surgery	332
Nobles E. R.,—Chronic appendicitis	13
Nobles, E. R.,—The use of iodine in goiter	769
Noguchi, by Gustav Eckstein, a review, by Dr. Rudolph Matas	131
— O —	
Ochsner, Alton,—Chronic cutaneous ulceration of the lower extremities	594
Ochsner, Alton,—(joint author), see Gage I. M.	239
Ochsner, Alton,—Looking into the future	945
O'Mara, B. B.,—(joint author), see Strain S. F.	34
Ophthalmologist, information that can be furnished by, by Dr. Henry N. Blum	464
Orleans Parish Medical Society Transactions	61, 286, 396, 487, 562, 638, 715, 812, 901, ...
Osteomyelitis, acute and chronic, by Dr. E. D. Fenner	105
— P —	
Paralysis, induced, of the diaphragm, by Dr. J. W. Barksdale and Dr. S. F. Strain	753
Parsons, W. H.,—The treatment of certain acute abdominal conditions	749
Patella, fractures, results of work done for past thirty-six years, with conclusions, by Dr. E. Denegre Martin	846
Pentobarbital-sodium, sodium ethyl-1 methyl-butyl-barbiturate, in medicine and surgery, by Dr. George F. Carroll	375
Physician's responsibility in the reduction of the cancer mortality, by Dr. Urban Maes	585
Plastic operation of the face, planning the, by Dr. H. Lowry Rush and Dr. Leslie V. Rush ..	948
Pneumonia lobar, and its treatment, by Dr. E. L. Walker	369
Poliomyelitis, abortive: report of two cases, by Drs. J. H. Musser and L. A. Monte	475
Practitioner, general, the role of in modern medicine, by Dr. W. H. Anderson	180
Pregnancy or fibroids, by Dr. P. Graffagnino	589
Prenatal care, importance of, by Dr. Joseph P. Evans	545
Problems, some challenging the doctors and health officers in Mississippi, by Dr. J. T. Googe ..	178
Prolapse and cystocele, by Dr. Hilliard E. Miller	687
Psychopathic personality, the problem of, by Dr. Geo. F. Roeling	693
Pyelographic studies with emulsified light brominol, by Dr. W. A. Reed and Dr. W. F. Henderson	876
Pyelonephritis occurring in pregnancy, by Dr. W. A. Reed	775
— R —	
Radiology as a specialty of medicine, by Dr. George P. Sims	234
Radium in the treatment of certain diseases of the uterus, by Dr. J. W. Barksdale	326
Radium treatment of carcinoma of the lip, by Dr. M. T. Van Studdiford	252

Rand, King,—Disability following fractures	791
Ratcliff, M. D.,—The diagnosis and treatment of cancer of the skin	550
Reed, W. A.,—Pyelographic studies with emulsified light brominol, by Ds. W. A. Reed and W. F. Henderson	876
Reed, W. A.,—Pyelonephritis occurring in pregnancy	775
Response to address of welcome, by Dr. S. C. Barrow	197
Reviews	131
Rheumatic fever and rheumatic heart disease, by Dr. Thomas M. McMillan and Dr. Charles F. Nichols	346
Robin, W. H.,—Toxoid immunization campaign	741
Roeling, Geo. F.,—The problem of psychopathic personality	693
Roentgenography of the skull, some observations, by Dr. B. H. Nichols	429
Roentgenology in medicine, the diagnostic importance of, by Dr. Leon J. Menville	674
Roentgen ray examination of the stomach, by Dr. R. C. Finlay	625
Roentgen rays, fractional doses in the treatment of infections of the mastoids of infants, when there is no sign of destruction present, by Dr. Amedee Granger	111
Roentgen ray in the diagnosis of malignancy, by Dr. E. C. Samuel and Dr. E. R. Bowie	760
Roentgen ray treatment of inflammatory and non-malignant conditions, by Dr. E. B. Van Ness	757
Ross, T. E., Jr.,—Surgery in the prevention of disease	460
Rush, H. Lowry,—Planning the plastic operation of the face, by Dr. H. Lowry Rush and Dr. Leslie V. Rush	948
Rush, Leslie V.,—(joint author),—see Rush H. Lowry	948
Rush's Infirmary Staff Meeting	486

— S —

Samuel, E. C.,—The roentgen ray in the diagnosis of malignancy, by Dr. E. C. Samuel and Dr. E. R. Bowie	760
Schilling index, by Dr. H. T. Nicolle	114
Shoulder, recurrent dislocations of, by Dr. E. D. Fenner	607
Signorelli, John,—The economic phase of diphtheria immunization in New Orleans.....	747
Sims, George P.,—Radiology as a specialty of medicine	234
Sims, W. S.,—The treatment of the excretory portion of the lacrymal apparatus.....	472
Sinus diseases complicated by eye disturbances, medical treatment of, by Dr. J. C. Adams	269
Sinus diseases complicated by eye disturbances, surgical treatment of, by Dr. Fern Champe-nois	272
Sinusitis, the etiology and prognosis of, by Dr. John B. Gooch	966
Skull, roentgenography of, by Dr. B. H. Nichols	429
Smith, Glenn J.,—Am I my brother's keeper?	531
Sodium ethyl-1 methyl-butyl-bartiburate (pentobarbital-sodium) in medicine and surgery, by Dr. George F. Carroll	375
Southern Medical Association	427
Spinal anesthesia, the technic and indications for, by Dr. J. Gould Gardner	953
Splenic enlargement, the diagnosis and significance of, by Dr. J. Birney Guthrie	340
Stanford, James B.,—Industrial eye injuries	782
State Medicine—Annual Oration, by Dr. James B. Bullitt	227
Stomach, roentgen ray examination of, by Dr. R. C. Finlay	625
Storck, Ambrose H.,—Formation of arteriovenous fistula for relief of sequelae of aortic aneu-rysm	440
Strain, S. F.,—Agranulocytic angina with case report, by Dr. C. F. Strain and Dr. B. B. O'Mara	34
Strain, S. F.,—(joint author), see Barksdale, J. W.	753
Strong, Robert A.,—The newer conception of diphtheria immunization	743
Surgery—an example of what surgery can do in saving a certain group of cases of pulmonary tuberculosis as illustrated by a case report, by Dr. Joseph A. Danna	513
Surgery in the prevention of disease, by Dr. T. E. Ross, Jr.	460
Syphilis and gonorrhea, the burden of, in New Orleans, by Dr. Walter Clarke	163
Syphilis early, its diagnosis and treatment, by Dr. R. L. Gordon	788

— T —

Tattooing—a brief review of its history, pathology and methods of removal, by Dr. Paul D. Abramson	191
Thermometers, clinical, inaccuracy of, by Dr. Oscar W. Bethea	130
Toomer, W. A.,—Home treatment of tuberculosis	357
Touro Infirmary Staff Meeting	890
Toxoid immunization campaign, by Dr. W. H. Robin	741
Transfusion, blood, by Dr. Samuel E. Field	764
Trichomonad vaginalis infection, and senile vulvitis and vulvo-vaginitis, by Dr. Lucien A. LeDoux	121
Tuberculosis, home treatment, by Dr. W. A. Toomer	357
Tuberculosis, pulmonary—an example of what surgery can do in saving a certain group of cases of pulmonary tuberculosis as illustrated by a case report, by Dr. Joseph A. Danna	513
Typhoid fever, experimental, with consideration of toxins and endotoxins, by Dr. William H. Harris	1

— U —

Ulceration, chronic cutaneous, of the lower extremities, by Dr. Alton Ochsner	594
Ulcers, peptic, acute perforation of, by Dr. C. Walter Mattingly	18
Underwood, Felix J.,—Appraisal of county health work based on reduction of morbidity and mortality	174
Undulant fever—a public health problem, by Dr. P. A. Kibbe	187
Undulant fever, bacteriology and pathology, by Dr. L. A. Hebert	259
Urinary lesions, non-urollogic symptoms due to, by Dr. E. Weiner	28
Uterine fibroids, one thousand cases in the negro race, by Dr. H. B. Alsobrook	317
Uterine retrodisplacements, operative correction of, by Dr. Walter T. Dannreuther	311
Utero-salpingorrhaphy with lipiodol, by Dr. J. P. Wall	329
Uterus, radium in the treatment of certain diseases of, by Dr. J. W. Barksdale	326

— V —

Van Studdiford, M. T.,—Carcinoma of the lip—radium treatment	252
Van Ness, E. B.,—The roentgen ray treatment of inflammatory and non-malignant conditions	757
Varices, esophageal and gastric, by Dr. A. E. Gordin	865
Verumontanitis: its relation to impotency, by Dr. L. B. Moseley	523
Vicksburg Hospital Staff Meetings	144, 283, 807, 895
Vicksburg Sanitarium	714
Vicksburg Sanitarium and Crawford Street Hospital Staff Meetings	54, 143, 205, 284, 394, 483, 559, 635, 808, 892, 974
Vulvitis and vulvo-vaginitis, senile, with special reference to trichomonad vaginalis infection, by Dr. Lucien A. Ledoux	121

— W —

Walker, E. L.,—Lobar pneumonia and its treatment	369
Wall, J. P.,—Utero-salpingorrhaphy with lipiodol	329
Weiner, E.,—Non-urollogic symptoms due to urinary lesions	28
Willis, J. C.,—The ruptured appendix and its management	518
Wirth, Willard R.,—Multiple myeloma—report of a case	698
Wood, G. H.,—Malaria: cause, misdiagnosis, treatment and prevention	31

New Orleans Medical

and

Surgical Journal

Vol. 84

JULY, 1931

No. 1

EXPERIMENTAL TYPHOID FEVER WITH CONSIDERATION OF TOXINS AND ENDOTOXINS.*

WILLIAM H. HARRIS, M. D.,

NEW ORLEANS.

(From the Department of Pathology and Bacteriology, Tulane University.)

The reproduction of typhoid fever by feeding *Bacillus typhosus* to anthropoid apes has been carried out with some degree of success by Greenbaum¹ and Metchinoff and Besredka.² Positive blood cultures, agglutination reactions, lesions of Peyer's patches and certain other features of the disease have been obtained. Feeding and inoculation experiments in smaller laboratory animals as performed by Besredka,³ Sedan and Herrmann⁴ and Gory and Dalsace⁵ have met with but little if any success. A more protracted infection or septicemia has been produced but the lesions resulting do not conform with those of human typhoid, presenting rather the aspects of an ordinary pyogenic invasion.

The feature of greatest interest to the writer is the study of the toxic factor of the typhoid bacillus. Much work has been carried out upon this phase of the subject and a general review of the pertinent literature is to be found in the work of Gay.⁶ There are those who hold that the poison is an endotoxin or one contained within the micro-organism and others who take the view that it is an ectotoxin,

elaborated in the cell and emanating to the surrounding structures. In any event there is some poisonous factor attributable to the activities of the typhoid bacillus which brings about the characteristic lesions and accounts for the clinical evidences of toxemia as manifested by the stupor or mental hebetude, the delirium, subsultus tendinum, and carphology.

The prevalent opinion among workers in bacteriology is that the poison of the typhoid bacillus is an endotoxin in as much as no specific soluble or ectotoxin has ever been procured which is usually not difficult in micro-organisms producing such a type of toxin as the bacilli of diphtheria, tetanus, botulism and the like. On the other hand, in micro-organisms that possess an endotoxin, the toxic factor is quite difficult to obtain as a specific moiety and in reality, several varieties of poisons are procurable, no one of which appears to be specifically or definitely related to the disease. For example in scarlet fever Dochez and Stevens⁷ state that at least two separate and distinct toxins were recovered by them from the so-called streptococcus of scarlet fever. While all are agreed that the ectotoxins or so-called soluble toxins are definite and specific poisons for their respective micro-organisms so much dissertation has arisen for the other group namely, the endotoxins that we have been for along time and are still at present in a maze of uncertainty as to their manner of producing injury to the host. Certain modern conceptions are

*Read before Orleans Parish Medical Society, October 13, 1930.

that virulence varies reciprocally with resistance or immunity and that virulence is due to the excretion of endotoxins, aggresins, virulins, or anaphylatoxins and these products injure the defensive mechanisms of the host or interfere with their activities upon bacteria. It has even been considered that the electrophoretic charge or potential difference (P.D.) related to the agglutinability of a micro-organism may likewise be related to its virulence. Thus there is a tendency to consider that this so-called endotoxin of pathogenic bacteria really breaks down the resistant barriers of the host and thus produce disease. While we can appreciate that this in part may be true, nevertheless after protective mechanisms are broken down we must still have some destructive substance that produces the injury, whether by interference with cell metabolism, bio-chemical action upon the cell itself, or any other method of producing morbidity. There is no intention to enter into the consideration of toxoids, toxons, toxinase, protoxin and the like as these would have no special significance herein.

It may be of interest to recount the various methods and devices by which various workers have attempted to obtain an endotoxic factor from the typhoid bacillus: Hahn subjected the organisms to a pressure of 400 atmospheres in a Buchner press, Macfadyen triturated the bacilli after freezing with liquid air, Besredka used heat to 60° and dessication in vacuo, Vaughan extracted a 2 per cent sodium hydroxide in absolute alcohol at 78° C. and numerous other methods have also been employed.

Since the in vitro or test tube efforts have, as a whole, proven futile in the production of specific endotoxins, there arises the question as to whether or not, these substances are only put in action when the micro-organism comes in contact with the living host. A classical representation of the liberation of a toxic moiety is shown in the Pfeiffer phenomena.

In this connection Duval⁸ immunized rabbits against the streptococcus of scarlet fever and found that when a suspension of this micro-organism was introduced into the belly cavity of such immune animals a lysate was procured containing a toxic factor which when injected into animals produced glomerulo-nephritis and other aspects in accord with the toxic factor of this disease. Others working with this micro-organism in vitro have obtained no toxic factor that may be regarded as specific and the inoculation experiments into animals have yielded negative results.

In the work undertaken by us^{9, 10} in connection with the typhoid bacillus, we simply produced an ordinary acute peritonitis by injecting a suspension of this micro-organism into the peritoneal cavity and then procured the fluid exudate present. This material was filtered through a Berkefeld filter and the filtrate injected into normal guinea-pigs. The inoculations were administered subcutaneously, intraperitoneally and intracardially for separate series of these animals. There resulted from these injections pyrexia, a marked leucopenia and in three or four weeks death occurred. The gross lesions found at post-mortem were enlarged lymphatic glands especially in the peritoneal cavity, softened and enlarged spleen, focal necrosis of the liver and lesions of the solitary follicles and Peyer's patches with superficial ulcerations. The microscopic study of the lesions of Peyer's patches and lymphoid structures presented a picture similar to that seen in human typhoid fever—namely, proliferation of endothelial cells presenting the aspect of the phagocytic cells of Mallory—which picture when generalized is regarded as pathognomonic of the disease. The focal necrosis of the liver present in the gross was confirmed microscopically and the spleen presented numerous shadow corpuscles outside and within the phagocytic cells. Control experiments reported by us,¹¹ wherein *B. coli* was employed in

a similar manner did not produce the same results.

It would appear therefore that the toxic material obtained through this procedure is the same poison or toxin that produces the diseases in the human host. In connection with the toxic filtrate obtained, it is to be realized that so-called filtrable forms of *B. typhosus* and many other micro-organisms have been demonstrated. Hadley, in a personal communication, has suggested that the lesions produced by us may be due to filtrable forms. We can see no reason for ascribing to a filtrable form of *B. typhosus* a specific capacity *per se* that the micro-organism proper does not possess. Again, since such forms are filterable as are the toxic elements, it would be difficult to separate their activities excepting by several generations of growth of the filterable forms. In fact, after we consider the potentiality of the filterable forms, we are still confronted with the realization, that they, too, must possess some specific toxic factor.

The regrettable feature of the work is that this toxic material is of a very weak titer, in as much as it is necessary to inject one of two c. c. at several periods in order to produce such lesions in the guinea-pig. In the instances of the toxins of tetanus or of diphtheria, an extremely small fraction of a cubic centimeter will kill a guinea-pig in a short period of time. This comparison is brought forward to show the impracticability of immunizing a large animal with the feeble toxin produced by us from the typhoid bacillus. Efforts have been made to procure intensification or concentration, even resorting to bacteriophage introduction into the peritoneal cavity with the micro-organism but with no appreciable results.

Such experiments point out the difficulties of procuring a satisfactory antitoxin for micro-organisms belonging to the endotoxic group. It serves to explain why the sera or antitoxins for pneumonia,

scarlatina and various septicemias have met with but little success. Since no potent specific poison is obtainable from such micro-organisms no satisfactory antitoxins can be produced. One would think that the production of lytic antibodies would be of great service but no striking results have been obtained through this measure.

It is questionable as to whether or not a highly potent and specific toxin can be procured from micro-organisms of the endotoxic group. It is also doubtful if the method of procedure would be the same for all, nevertheless, if such a process by some new method is discovered through research endeavors, we could expect the production of a most striking and useful augmentation in the field of sero-therapy.

REFERENCES.

1. Greenbaum, A. S.: Brit. Med. J., 1:817, 1904.
2. Metchnikoff, E., and Besredka, A.: Ann. Inst. Pasteur, 25:13, 1911.
3. Besredka, A.: Local Immunization, Baltimore, 1927, p. 116.
4. Sedan, J., and Herrmann, R.: Presse méd. 32:403, 1924.
5. Gory, M., and Dalsace, J.: Ann. Inst. Pasteur, 40:194, 1926.
6. Gay, F. P.: Typhoid Fever, New York, 1918, p. 31.
7. Dochez, A. R., and Stevens, F. A.: J. Exper. Med., 46:487, 1927.
8. Duval, C. W., and Hibbard, R. J.: J. Exper. Med., 46:379, 1927.
9. Harris, W. H.: Proc. Soc. Exper. Biol. and Med., 25:372, 1928.
10. Harris, W. H., and Larimore, O. M.: J. Exper. Med., 48:885, 1928.
11. Harris, W. H., and Larimore, O. M.: Proc. Soc. Exper. Biol. and Med. 25:528, 1928.

DISCUSSION.

Dr. C. W. Duval (New Orleans): I listened with a great deal of interest to Dr. Harris' very excellent dissertation on experimental typhoid fever, and particularly what he said about toxins and endotoxins. Of course, it is hard for me to add to his paper. It is with considerable trepidation that I open the discussion because of my ignorance of the nature of the toxic principle in typhoid.

Dr. Harris has shown us photomicrographs of the experimental lesions of typhoid fever. He did not stress enough, however, that these correspond

completely with the lesions produced in man by typhoid fever. I would say there is a complete correspondence. There is no lesion that we see in man, unless it be the "rose spot" that Dr. Harris has not induced in the experimental animal by means of what he regards as the endotoxin of the typhoid bacillus.

This matter of bacterial endotoxins is of great interest to us all, and especially from the standpoint of specific serum therapy in certain of the infectious diseases of which typhoid fever belongs. The infectious diseases are toxemias and should be considered under two groups: (1) those that are caused by germs elaborating a soluble toxin, and (2) those that are caused by so-called endotoxin, which is a poison held within the cytoplasm of the living micro-organism. It is with diseases that are caused by micro-organisms that elaborate a soluble toxin that we are able to benefit with immune serum therapy, as for example diphtheria. Diseases caused by micro-organisms that elaborate no soluble toxins but produce the disease through endotoxins, we have not been successful with specific serum treatment. This then is one of the knotty problems that immunologists are confronted with at the present time. Until we find out something more about the nature of endotoxins we cannot hope to do much in the cure of the prevention of disease by means of specific serum therapy.

Just what are endotoxins? Certainly in the ordinary sense they are unlike bacterial toxins. It seems they are incapable of stimulating the body cells with the result that specific anti-toxins are produced such as we see for true toxins. Endotoxin undoubtedly stimulates the host cells to produce an ant substance that is destructive to the responsible antigenic agent. Such an immune substance we speak of as lysin, and undoubtedly it is lysin that establishes the immunity in typhoid fever and keep us protected against subsequent attacks of the infection. In typhoid fever we see recovery and protection because of the production during the course of the disease of immune substances. These anti substances have no toxin neutralizing effect in typhoid. In this disease we know that a toxic substance is extant in the patient but concerning its nature we are totally in the dark. For typhoid fever, Dr. Harris explains, recovery is undoubtedly due to antibodies produced at the time of the infection and these remain after recovery, accounting thereby for the permanent immunity. Until we can induce experimentally with typhoid antigen an anti-endotoxin we cannot hope to know much about the nature of the specific poisons of *B. typhosus*.

In conclusion, I would like to say that for typhoid and other "endotoxic" diseases that are produced by micro-organisms elaborating no soluble toxin, it is fairly certain that the respective poisons do not occasion in the infected host a specific neutralizing antibody.

Dr. J. H. Musser (New Orleans): There are one or two things I would like to find out from Dr. Harris in regard to this preparation. In the first place, is the toxin destroyed by heat? Does heat have any effect? I would like to know if he conceives of the disease typhoid fever being a disease which is primarily due to a toxin or whether produced by the organism itself? I would like to know what relation it bears to allergy.

Dr. Harris (closing): I do not not know that I will be able to answer very fully the inquiries of the various gentlemen.

Dr. Duval has explained to a considerable extent the method by which we think these individual get well. There is little doubt but that bacteriolysins play an important role in these recoveries. On the other hand, if we produce, as can be readily accomplished in lower animals, a bacteriolysin, by inoculation of the micro-organisms, we know that this particular serum when put into the human body does not cure the case. For example, to produce a bacteriolysin for *B. diphtheriae* is of no value therapeutically.

Dr. Musser brought forth some extremely interesting features. The particular toxin we have is very unstable. It is destroyed by heat, it is thermolabile. The other question concerned the analogy between the manner in which the toxins of diphtheria or tetanus produce disease as compared with typhoid. Diphtheria and tetanus poisons are easily and readily formed; they are exotoxins. In typhoid the living host appears to play an important part in forming or liberating this particular toxin and it is then capable of giving rise to toxemia.

Dr. Musser has also brought up the question of allergy. The phenomenon of allergy has, of course, entered greatly into the consideration of many reactionary occurrences. It represents the sensitization of the host with subsequent toxic reactions following the primary sensitization. Nevertheless, we must consider allergy as after all the result of some form of poison that is produced whether secondarily or otherwise.

DIVERTICULITIS OF THE COLON
WITH SPECIAL REFERENCE TO

THE SIGMOID.*

B. C. GARRETT, M. D.,

SHREVEPORT, LA.

This condition was first noticed by Virchow in the nineteenth century and some forty or fifty years later Grasser's report and description of this disease made it much clearer to us, and later the extensive study of it by W. J. Mayo and his associates further cleared up the situation. Since that time practically all of the men writing on the subject agree on the method of handling it. I was disappointed in the small amount of space devoted to it in our present day text books.

The reason for presenting this paper is primarily to learn more about this disease myself and to call the attention of the profession to a condition or certain entity that we have in the past overlooked in a great many instances. It has been termed by some authors as left-handed appendicitis and the abdomen has been opened no few times for a ruptured appendix to find a normal appendix and, upon further exploration, a ruptured diverticulum of the sigmoid. I have been guilty of this myself and I am sure there are many other offenders. The usual symptoms that accompany this condition is no doubt familiar to all of us: pain, rigidity, temperature 100° to 104° F. and general abdominal distension and tympanites. The history given by these cases is one that is generally associated with chronic constipation and often times a colitis. It has probably never been proven beyond a doubt that these conditions cause diverticulitis, but it is an evident fact that one or both of these conditions go hand in hand with diverticulitis.

It might be well here to discuss what is generally accepted as the classification of this disease. First, the condition may be

congenital or acquired. The congenital diverticula are mostly confined to the small intestines, such as Meckle's diverticulum and an occasional diverticulum of the duodenum. I have under my observation now a case of diverticulum of the duodenum that has had three major abdominal operations, one in one of the best clinics in this country and the other two by good men, and the same symptoms prevail now as before those operations, and we only recently discovered it in our radiological study of her gastrointestinal tract. This condition is rare, but we all know that we stumble upon Meckle's diverticulum every now and then. The diverticulum of the small intestines, or the congenital types as we will speak of them, contain all three layers of the intestines, i. e., mucous membrane, muscular and serous coat.

The diverticulum of the colon are commonly called diverticulosis where there are several diverticulum of the colon in any part and are not causing any particular symptoms, and diverticulitis where there is any inflammation association with the diverticulum. It is conservatively estimated that about 85 per cent of diverticulitis is confined to the sigmoid.

I mentioned above diverticulosis or diverticula of the colon that were causing little or no trouble. Now I will speak of some of the complications of the disease. First of all, and one of most concern, is ruptured diverticulum. Of course here you are dealing with a very sick patient. The rupture usually occurs where the appendices epiloae come off from the intestines or where the artery enters the intestine. The two most plausible explanations for these two sites being the most common locations of rupture are: first, that fat replaces the muscle fibres in the first location, and that in the second instance the intestine wall is weakened where the vessel enters and allows the mucous membrane to push out at that site. The second complication is rupture of the diverticula and consequently burrowing through the

*Read before the Louisiana State Medical Society. Shreveport, April 29-May 1, 1930.

scrotum or even through the perineal region with pus and fecal contents escaping through this sinus.

Third, rupture into the bladder, which is not unusual. This happened to one of my own cases several days before she had been operated upon and drained. These openings into the bladder usually close of their own accord, but sometimes have to be closed by operation later on after the acuteness of the condition has subsided.

Fourth, abdominal abscess which is the result of ruptured diverticulum and which points to the left iliac fossa most of the time but might produce a pelvic abscess, or might, as stated above, burrow through the perineum.

Fifth, obstruction of the bowels. This is a picture that most of us have faced to our sorrow. Usually a short fatty type of individual above fifty years of age is rushed into the hospital or sanitarium with this complication. This obstruction may be caused by several things, but most often by cicatricial tissue at the seat of the rupture of the diverticulum or by inflammation and edema of the affected parts.

Sixth, lues should be considered as a possible complication until ruled out by laboratory and therapeutic test.

Seventh, carcinoma of the sigmoid associated with or as a complication of diverticulitis. It has been shown that carcinoma is present in a small number of cases. Any case that passes blood from the rectum should be considered a possible case of carcinoma, as an ordinary ruptured diverticulum seldom ever causes the passage of blood from the rectum. I might add here that it is not an easy task to tell whether carcinoma is present or not, even after the abdomen is opened. Often the tissue will look to be cancerous only to have a report come back from the laboratory "non-malignant."

Diagnosis of these conditions as I see it depends upon first, the history of the case;

second, clinical symptoms; third, use of proctoscope, (but the mass is usually too high to be diagnosed by this means); and fourth, and most important, the roentgen-ray study of the case. We find the conditions in males as compared with females in a ratio of about three to one. Some cases have been reported in very young people, one case I believe in a child of seven years, but most of them are in people past middle life, and the average age of occurrence is past fifty years.

It is thought that barium taken by mouth more often fill diverticula than when given by enema. Some of the leading radiologists say that a plate taken two or three days after the original meal often shows diverticula that did not show on the original plate. The barium in the diverticula is the last to pass out. One should not be misled by haustrations or pouches in the large intestine and call them diverticula. Pleboliths, gas bubbles, ureteral stones, and calcified glands are some other things that might be taken for diverticula.

Treatment should be divided into two classes: first, treatment of the chronic cases of diverticulosis; and second, treatment of the acute diverticulitis, ruptured or unruptured.

The first class should be a matter of diet that causes as small an amount of residue as possible, colonic irrigations, regulation of bowels with mineral oil, etc.

The second class, acute diverticulitis, I think should be treated conservatively. That is, rest in bed, ice cap to abdomen, enemas as indicated and proper diet. If an abscess forms it should be opened and drained and in the majority of those cases the diverticula will close without further treatment. This has been demonstrated by roentgen-ray study and laparotomy. One of my cases had ruptured into the bladder as stated above and an attempt was made to repair it but it was too friable to hold, and it evidently closed. In some rare cases,

where there is obstruction a resection of a portion of the sigmoid should be done. Some cases might be done in one operation, but perhaps the method of choice would be the operation described by Mikulicz, first stage being to bring the intestine out of the cavity and fixing it according to his technic, and waiting two or three days if possible for the second stage or the resection. Side to side anastomosis should be considered in certain types of the obstructive cases where you have a sufficient loop of intestine to bring around the mass.

In three of our cases resection with end to end anastomosis was done with the Murphy button. Two got well, one died, and one case was simply drained and she got well. The other one has not been operated on.

CASE REPORTS.

Case 1. Mr. M. T. F., white male, aged 46 years, was admitted to the sanitarium April 18, 1927 complaining of constipation and a mass in the lower left abdomen. The patient had been in good health for many years. However, eight years ago he had had a similar complaint which was relieved by a good copious bowel movement. He was frequently constipated and noticed some blood and mucus in the stools. For several months prior to the present illness he had had a slight hypertension with a low grade chronic nephritis. The present illness started three days prior to admission with constipation and the appearance of the mass in his side. Various laxatives and enemata gave very little relief. The general physical examination revealed little of importance except a blood pressure of 150 systolic, 100 diastolic; a mass the size of a large orange in the lower left abdomen, and a slight trace of albumin in the urine. Operation was advised and on April 27, 1927, the abdomen was opened with a left rectus incision. A growth on the sigmoid about the size of a man's fist was exposed and dissected away from pelvic peritoneum. The growth was delivered and about 8 inches resected between clamps. A Murphy button was applied, the edges covered over with chromic No. 2 sutures and the mesentery attached over the gut. The omentum was brought down to where the button was put in. Cargile membrane was applied to the peritoneum where the mass was dissected. The wound was closed with chromic No. 2 and silk worm gut. After the growth was removed what looked to be a diverticulum was dissected out. Microscopic findings: Diverticulum with tuberculosis.

Case 2. Mrs. W. A. K., entered the hospital May 2, 1926. She was a well developed white female of the short fatty type. Physical findings were essentially negative except for tenderness in the left side of the abdomen, which had bothered her for some weeks before entering the hospital. About every two or three weeks she said she would have to go to bed and stay in bed for two or three days. The onset usually came in with a slight rigor. She had been having these previous attacks for six or eight weeks before coming to the hospital. She thought that during the attack she usually had a little fever. Upon entering the hospital we saw a patient that had an acute abdominal distention, tympanites and vomiting. Under general anesthesia through a mid-line incision we found a mass in the sigmoid that was producing an obstruction. This mass, which included from eight to twelve inches of the bowel, was resected and the ends brought together by means of a Murphy button. The wound was closed with chronic cat gut No. 2 and silk worm. Microscopic findings on this tissue removed was a fibro-lipoma phlegmonous abscess and many plasma cells and eosinophils, some congestion, fibrinous exudate on the outside, not malignant. This operation was performed by a former associate of mine, Dr. Willis, and myself. Note: Further data on this case. Patient was readmitted to the hospital on December 7, 1926 for obstruction of the bowels. Upon opening the wound through which a post-operative hernia had developed, we found that the entire abdomen was filled with numerous adhesions and that the cecum had been pulled over to the region where the sigmoid had been resected. These adhesions were freed from the cecum and a band of adhesions that was caused by a piece of omentum was also freed from the sigmoid. The patient made an uneventful recovery.

Case 3. Mrs. A. Q., Sr. entered the hospital June 6, 1928. She was a well developed white female, aged 55 years. Her present illness had begun May 17, with severe cramps in the abdomen. On May 18, the pain became less. She took a dose of castor oil and felt better after the castor oil acted. On May 19 and May 20 she felt weak but had very little pain. On May 20 she took a soapsud enema and while she was expelling the enema a sharp pain started in her abdomen and she became very weak and cold. The pain lasted for three hours when morphine sulphate, grs. $\frac{1}{4}$ was given. The pain stopped and the abdomen became very hard and distended. She felt a chilly sensation throughout her back and suffered tachycardia and felt very feverish. The doctors who were called in the case treated her for intestinal influenza. She gave no history of having passed blood from the rectum. However, she had

been constipated. On June 5, 1928, I was called in consultation and found a patient with a distended abdomen with a history of frequent urination, the urine containing much pus with a very foul odor. A pelvic examination was made and I found that the entire pelvis was one solid mass apparently more to the left than to the right side. The patient was brought to the sanitarium and under gas-ether anesthesia a mid-line incision was made. Upon opening the abdomen a ruptured diverticulum of the sigmoid was found which also had ruptured into the bladder, also an abscess in the pelvis which had a distinctive fecal odor. The appendix was mixed up in the general mass and was removed. The abdomen was drained by means of rubber tissue cigarette drains. Diagnosis from the laboratory on the appendix was fibrosis and congestion. The patient's abdomen was closed with drains as stated above. She had a rather stormy convalescence for a few days, but gradually got well and the opening in the bladder closed up within about three or four weeks time. Later on August 22, 1928 a fluoroscopic examination showed the following: "Fluoroscopic and plate observation of the colon, following the opaque enema, shows a partial obstruction in the sigmoid."

Case 4. Mrs. G. S., Sr. entered the sanitarium July 1, 1921 with a pre-operative diagnosis of sarcoma of the sigmoid. The post-operative diagnosis was the same at first, but later was changed to diverticulitis. She was a well developed fat female, 47 years of age. The past history was negative. She came into the sanitarium complaining of intense pain in lower left abdomen, more painful after her menstrual periods. The patient stated that this condition had existed for about six months, growing more pronounced and severe in character. She was subject to constipation, no urinary symptoms, appetite good, suffered with indigestion at times caused probably from indiscretion in eating. The patient had had two operations in her past life, one in 1910, perrinorrhaphy, and in 1913 had laparotomy, suspension of uterus and removal of ovarian cyst, and breaking up of adhesions. The appendix had not been removed. She had enjoyed good health all her life except for rheumatism in both knees and to a lesser degree in the hands. She had been married at the age of 19 years and had one child 27 years old, healthy and normal. Menstruation started at 13 years of age, normal and regular. The heart and lungs were negative. The abdomen was very obese, and negative except for pain below the umbilicus in the lower left side, radiating upward. A vaginal examination revealed a mass in the region of the left ovary that was movable. There was some bloody discharge from the rectum. The patient's abdomen was opened through a mid-line incision

on July 1, 1921 and a mass in the sigmoid was found which was resected several inches in length by means of cautery. An end to end anastomosis was then done by means of a Murphy button. The abdomen was closed without drainage and the report from the laboratory, as stated above, was first fibro-lipo-sarcoma, spindle cell type, later changed to diverticulitis. The patient vomited for the first four or five days and after that got along nicely. On July 18, 1921 a fluoroscopic examination was made which showed the button still in the sigmoid. On the twenty-first day she passed the button. On November 15, 1921 about four months after she passed the button, another series of pictures was made on her and the following report rendered: "Roentgen-ray examination of the rectum, sigmoid and descending colon by enema method shows the rectum normal, sigmoid and descending colon constricted with serrated edges throughout." Diagnosis: the above appearances indicate chronic inflammatory thickening of the intestinal wall non-malignant in nature. The patient today is up and well. This patient was operated upon by Dr. Willis, Sr. and myself.

Case 5. Mr. F. A. B., aged 56 years, a white male complaining of intense cramp in the abdomen periodically—for a period of several months. The patient was somewhat dissipated but had been in excellent health for many years. The present illness began in March, 1929, with cramping pains in the intestines, seemingly distributed over the colon. There were evidences of an associated gastritis. The bowels were rather costive but no blood or mucus had been demonstrated. The general physical examination was that of an elderly white man well developed and nourished. The heart, lungs and extremities were normal, some tenderness distributed over the abdomen, apparently following the course of the descending colon. The laboratory examinations were irrelevant. From the history and clinical records he was thought to have a diverticulitis. Roentgen-ray examination confirmed this, but instead of a single diverticulum there were numerous small diverticuli over the descending colon. He was advised as to diet and has had very little trouble since.

BIBLIOGRAPHY.

- Haines, W. D.: Diverticulitis of the sigmoid, *J. Med., Cincinnati*, 8:377-383, 1927.
 Judd, E. Starr and Pollock, Lee W.: Diverticulitis of the colon. *Ann. Surg.*, September, 1924, p. 425.
 Mailer, Robert: Diverticulitis of the sigmoid associated with tuberculosis. *Am. J. Surg.*, 2:142-146, 1927.
 Masson, J. C.: Diverticulitis of the large bowel. *Canad. M. Assn. J.*, February, 1921.
 Matthews, A. Aldridge: Diverticulitis of the sigmoid. *Northwest Med.*, April, 1924.

- Mayo, William J.: Diverticulitis of the large intestine. *J. A. M. A.* 69:781-785, 1917.
- Mayo, William J.: Diverticulitis of the sigmoid. *Virginia M. Month*, November, 1921.
- Mills, W. M.: Diverticulitis of the colon. *J. Kansas M. Soc.*, 26:39-41, 1926.
- Noecker, Charles B.: Case reports: perforation of sigmoid and small bowel into uterus. *Penn. M. J.*, 32:496, 1929.
- O'Callaghan, R.: Diverticulum of the ascending colon. *Surg., Gynec. & Obst.*, 679-680, 1921.
- Overton, D. C.: Diverticulosis of the large bowel. *Med. Clin. N. Am.*, 11:1361-1370, 1928.
- Patterson, Russell H.: Diverticulosis of the large intestine. *Am. J. Surg.*, 5:81-82, 1928.
- Peech, Charles H.: Diverticulitis of the colon. *Ann. Surg.*, 322-325, 1925.
- Porter, Miles F.: Enteroliths and diverticula, especially enteroliths contained in diverticula of the large bowel. *Surg., Gynec. & Obst.*, August 185-186, 1925.
- Rankin, Fred W. & Judd, E. Starr.: Emphysema of the scrotum and the result of diverticulitis of the sigmoid with perforation. *Surg., Gynec. & Obst.*, September 310-312, 1922.
- Sherrill, Alvan W.: Diverticulitis simulating carcinoma. *Atlantic M. J.*, 30-165, 1926.
- Straub, George F.: Diverticulum of the descending colon causing hydronephrosis. *Surg., Gynec. & Obst.*, 30:359-360, 1920.
- Ballin, Max.: Diverticulitis of the colon. *Am. J. Surg.*, 2:130-141, 1927.
- Barbat, J. Henry: Diverticulitis of the sigmoid: report of a case. *Surg., Gynec. & Obst.* 10:295-299, 1910.
- Carman, Russell D.: Report of a case of diverticulitis of the sigmoid, with the roentgenologic findings. *Ann. Surg.*, 61:343-348, 1915.
- Carman, R. D.: The roentgenologic findings in three cases of diverticulitis of the large bowel. *Ann. Surg.*, March, 1915, p. 343.
- Case, James T.: Diagnosis and treatment of colonic diverticula. *Am. J. Surg.*, 4:573-596, 1928.
- Chute, Arthur L.: Diverticulitis of the sigmoid as a source of bladder irritation. *J. Urol.*, 21:13-21, 1929.
- Conley, H. P.: Diverticulosis of the colon. *South. M. J.*, 18:503-506, 1925.
- De Quervain, F.: Diverticulitis of the large intestine. *Practitioner*, 118:352-360, 1927.
- Enfield, Charles D.: Diverticulosis and diverticulitis of the colon. *Am. J. Roentgenol.*, 12:242-245, 1924.
- Enfield, Charles D.: Diverticulitis of the colon with special attention to diagnosis. *Radiol.*, 7:371-378, 1926.
- Erdmann, John F.: Diverticulitis of the colon. *Am. J. Obst. & Gynec.*, 11:609-616, 1926.
- Gant, S. G.: Diverticula, diverticulitis and peridiverticulitis; of the small intestine, cecum, colon, sigmoid flexure and rectum. *J. A. M. A.*, 77:1415-1420, 1921.
- Frank, Louis: Vagino-rectal anomaly; sigmoidal diverticulitis; case reports. *Kentucky M. J.*, 23:287-288, 1925.
- Thomas, W. S. & Jewett, C. Harvey.: Diverticula of the colon. *Clifton M. Bull.*, 2, 1925.
- Veseeen, L. V.: Diverticulitis of the sigmoid and rupture into the urinary bladder. *J. Urol.*, 20:598-605, 1928.

DISCUSSION.

Dr. J. E. Heard (Shreveport): Dr. Garrett has covered the main points of this important subject very thoroughly, but there are a few little points I should like to touch on.

This left-handed appendicitis is very much the same as an acute appendix. Unfortunately, we have one or more acute appendices to deal with. Colostomy is one of the main things to pull us out of the fire here.

The thing I want to say a little about is the Mikulicz operation. The Mikulicz operation, as you all know, is usually a three-stage procedure. It doesn't look as pretty as a straight resection, and it has its limitations because the mass must be mobilized to bring it outside the abdominal cavity. This cannot always be done. If it can not be done, we can do a colostomy. However, I believe the straight resection in this runs a high mortality. The mortality runs anywhere from fifteen to twenty per cent. I think it is a rather dangerous procedure, but it is always a temptation, where we have the mass, to do a straight procedure and take it all out with an end-to-end anastomosis.

There are a few little points about the operation that it is well to bear in mind. (Blackboard drawing). With the Mikulicz operation, that is the abdominal wall, and you bring these loops of the intestine out like this, provided we can mobilize the tumor. That can usually be done by splitting the external leaf of the colon, and that does not interfere with the blood supply. With the Mikulicz operation we try to bring the tumor mass outside of the abdominal cavity. Be sure there are no pockets in the mesentery, with the intestine inside. The reason is that we cut the intestine when we go to cut the shotgun double-barrelled septum out. Use a rubber dam over this. The proximal loop, if necessary, can immediately be punctured with a cautery (small tip) and, if necessary, I have done it a number of times, a large catheter can be put in there and drainage established immediately. After a few days, we take the actual cautery and lop it off flush with the skin. Do not cut it too close because the ends always retract and we do not want them down too low.

Looking at it from the top, we have a double-barrelled shotgun right there. When these lips are brought together, you want to offset it so that the main blood supply is not on the center. If you do, you cut through the blood supply sometimes and get a hemorrhage. Offset that a little bit. Then the clamp comes in here. They will sometimes close, but often it requires a third operation to close these colostomy operations.

Literally, the Mikulicz operation is a life saver, because it will save the mortality, although it is more or less long drawn out and requires two or three operations. It will save twelve per cent or better in mortality.

Resections in these cases are very dangerous because of the inflammatory trouble. I think we should treat these acute cases much as we would acute appendicitis cases. I don't think we should wait too long because if rupture is threatened you have a very much more serious condition to deal with. If you can go in soon enough, you can take care of this trouble here below.

Dr. J. A. Hendrick (Shreveport, La.): I will just take up the discussion of Dr. Garrett's paper from the standpoint of acute rupture. There is no doubt that too little is said in our text books and journals about this condition.

We have had in the past few years five cases of acute ruptured diverticula of the sigmoid at the Highland Sanitarium. As Dr. Garrett said, it is not as rare an occurrence as our text books would lead us to believe.

It is especially of prime importance to make a diagnosis in an acute ruptured diverticula of the sigmoid. There is a point in the history of these cases that we have seen that might be very important. Of course, in the acute ruptured diverticula of the sigmoid, we have the cardinal symptoms of acute ruptured viscus, with severe onset of pain in the abdomen, tender board-like rigidity of muscles, increased pulse rate, the tragic shocked condition of the patient. We readily suspect a ruptured viscus. To definitely locate the rupture in the sigmoid is very difficult and not often done preoperative. The important point we get in taking the history which may be a lead to a correct diagnosis and which we found in four of our five cases was the onset of the acute abdominal pain while straining at stool. We can readily see why the rupture might occur at this time. With the walls of the diverticula very much thinned out, straining to empty the sigmoid which is filled with gas and fecal material with marked increase intra-sigmoidal pressure, makes the time ideal for a rupture.

I am thoroughly of the opinion that if the diagnosis of a ruptured sigmoid can be definitely made, operative procedure is contraindicated unless the case is seen very early. In our hand the only case in our series that recovered was one in which a diagnosis was not made until after the abscess had become definitely localized in lower left quadrant and was drained under local.

We have a number of different types of inflammatory diverticula. The one most often diag-

nosed as a left-side appendicitis is small. We have seen a number of these. I think Dr. Garrett advised enemas. I know of one patient who had a small diverticula rupture while an enema was being given. We advise against enemas, especially during the acute stage. If an enema is given it should certain be very low pressure.

If we will bear in mind the history of this condition: That it is usually in men about forty to fifty years old, rather stout, who have been more or less constipated for several years, with the onset of acute abdominal pain while straining or when at stool, it will give us a lead that will help make a correct diagnosis.

I think Dr. Garrett's paper is on a subject that we should give careful study. We see more of these cases since we have begun the roentgen-ray study of the gastro-intestinal tract, with opaque solution. Ruptured diverticulum is more common than was formerly taught. Diagnosis is very difficult. The mortality is extremely high.

Dr. S. C. Barrow (Shreveport): The position of the radiologist in the question under discussion is just exactly the opposite of that in which he is placed in the previous paper on osteomyelitis. This is evidenced by the fact that the enormous increase in the number of cases being reported since the advent of the roentgen-ray study is apparent.

Diverticulitis, diverticulosis and diverticula are terms that are applicable to those extraneous pockets to the digestive tract. They occur all the way from the mouth, you may say, or the upper esophagus, to the rectum. The diverticula in the upper part of the tract are usually congenital, while those in the colon are not so often so, as those above.

I could not attempt to discuss the paper, Mr. Chairman, excepting from the standpoint of roentgen-ray observation.

I have a slide or two illustrating Dr. Garrett's paper, including some of his cases.

Dr. Hendrix made a remark to you which I want to take the opportunity of stressing. Please do not tell your radiologist, please, to give a patient an opaque enema when you suspect a diverticulitis. Tell the radiologist that you would like to have the colon examined, that you suspect diverticulitis. Personally, I do not believe the opaque enemas under the roentgen-ray, considering their danger, are of any value. Our technic is to feed the patient barium, and I am backed in this by the most high authorities. Let it go down through the processes of peristaltis and pack into the various diverticula pockets and you

will get the demonstration of the diverticula, whereas you will miss it if you attempt to do it the other way.

“The case Dr. Hendrix spoke of I diagnosed years ago by the oral method of giving the barium, and my diagnosis was refuted in several clinics. The man was put on the table and irrigated with the simple diagnosis of colitis. His diverticula ruptured and he died.

Don't tell your radiologist how to do it, please. Select one that you have some confidence in and put the matter as to how he shall do it up to him.

(Slide) This is one of Dr. Garrett's cases, as I remember it. You will notice the multiple diverticula. Down in this area you can see vaguely two of the extraneous pockets which are in the descending lower portion of the colon.

(Slide) We have over here a series of diverticula. Here is the duodenal cap. Here is the diverticula at this point. Here is a large one here, and another at this point. She had three large ones distal to the duodenal cavity.

(Slide) Dr. Garrett makes special reference to the descending colon, and you can see the extraneous and extra colonic shadows which represent infiltrated pockets in the colon.

(Slide) Right in this area is a diverticula, a large pocket, from the transverse colon.

(Slide) Here you see the multiplicity of pockets along the descending colon which Dr. Garrett's paper has special reference to.

Dr. L. J. Menville (New Orleans): I have not heard anybody mention the fact this morning that cases of diverticula are often seen in stout individuals, as represented by the hypersthenic build or habits of the individual. A patient complaining of pain referred to the lower left quadrant of the abdomen, should be examined carefully for a palpable mass at the site of the pain, so often encountered in diverticulitis. Of course, that does not occur in all cases, but it might be well to bear in mind that patients having definite pains in the lower left quadrant of the abdomen, especially stout individuals, often prove to be a case of diverticulitis with a corresponding palpable mass.

That brings to mind the fact that the use of the barium enema should be emphasized, and it should be used more often than it is now being used. In some of the larger clinics, not only of this country but in Europe, all patients manifesting pain in the abdomen are referred for a barium enema.

Roentgen-ray examination offers the best method of diagnosis in diverticulitis. No doubt, however,

some few cases are being missed by the radiologist unless certain care is manifested. For instance, we may have several diverticula in the lower sigmoid that will not be visualized if the barium enema is administered with great pressure and with a long rectal tube. In such instances the enema should be made to flow in the bowel gradually and having it under absolute personal control where it may be momentarily stopped for observation.

I think it is impossible for any roentgen radiologist to make a diagnosis of diverticulitis from the roentgen-ray examination alone, because we are incapable of demonstrating inflammatory products, *per se*, but we offer with the roentgen-ray the best method of visualizing diverticula.

Dr. C. P. Rutledge (Shreveport): I have some slides that demonstrate some of these cases very graphically, and I use both the barium enema and the barium meal. Barium meal will show more diverticula than the barium enema. There is no question about it. But the barium enema is of value especially in view of these acute conditions. In some of these conditions where you know you have an acute inflammatory condition with partial obstruction it is probably unwise to give barium meal, but you might be perfectly justified in using the barium enema.

The first case I will show is one on which I was called early one Sunday morning when I was president of our local society. “For God's sake, come down quick, I have a left side appendix.” I went down. We gave a barium enema very carefully, and then we took him over to the roentgen-ray department and gave him the barium meal.

(Slide) You will notice here marked spasticity in the sigmoid. He wanted to find whether his appendix was on the left or right side. The fluoroscope and the plate shows us much better than the slide the appendix in the normal position, with no inflammation around it. He had very great spasticity in the sigmoid, probably diverticulitis, and we suggested that the patient be put to bed and a reexamination made at a later date.

(Slide) Five days later we made another examination after the man had been in bed on a starvation diet, or very bland liquid diet, and you see here a little pocket at this point. I might say that just previous to this examination the man evacuated about two ounces of pus by the rectum, probably a ruptured diverticulum, and with the barium enema we were able to find it five days after the man came in for observation.

(Slide) Here is a case that my friend Dr. Barrow won't believe is so, diverticulum of the

appendix. It has not been proven. I don't blame him for not believing it, but if he had seen it as I saw it I don't think he would argue the point at all. I can get the appendix between the fingers. You can see two or three diverticula very distinctly. This is a case of chronic diverticulosis.

I examined two local postmasters and did complete G-I examinations, and both had diverticulosis. I don't know whether it is a postmaster's disease or not. You see diverticula here. This is the appendix here and shows very nicely on the fluoroscope and on the original film.

(Slide) That appendix was down in the hernial sac. This is the case of another postmaster, using barium meal, and this was made seventy-two hours after the meal. There are any number of diverticula. Every one of these round specks represents a diverticulum. This is the appendix here. These are not diverticula of the appendix here. They are scattered from the cecum right through into the rectum. I counted a little over 300 in that man's colon. I never have seen a case on record which would anywhere near compare with it. The peculiar thing about it is that this man had no symptoms whatever. Several years previous to the examination he did give a history of voluminous hemorrhage. He was kept in bed until the hemorrhage ceased and he made an uneventful recovery. Previous to this examination, he had a similar attack, a hemorrhage from the rectum. He was put to bed and kept on liquids or all starvation diet for several days, and I ran this series of films. Even at the twenty-four hour film you can see any number of diverticula.

(Slide) This is ninety-six hours after. You see nothing left but the diverticula. If we had gone ahead, we would probably have been able to show very few of the diverticula. You see any number in ninety-six hours after the barium meal. Here it is all around the rectum, and anywhere you look, you find them. That man is now apparently well. He had no other attack. He was put on some type of mineral oil which kept his bowels active.

(Slide) In this case you see any number of diverticula scattered. This is the same man seven days after the first plate with the barium enema. You see, they don't show nearly as well as with the barium meal.

(Slide) This is a case of right-sided diverticulitis. The surgeon said it looked very much like an acute appendix but he was afraid it wasn't. He said he had a hernia. It probably wasn't that. I made a complete G-I series on him and diverticula were shown on the meal film. These were made about three or four days ago. You notice here, it shows very plainly. Here is the sigmoid

over at the right; not on the left at all. The man looks as though he has two transverse colons. He had nothing going up here in the left lower quadrant where you expect to find the pelvic colon and sigmoid. Everything was pulled over to the right. The head of the cecum was fixed adherent to the sigmoid. You have the area of spasticity, the descending colon coming down here. You have the area of spasticity from here down to the rectum. Only by an ingested meal film could we show numerous diverticula. With the barium enema you can see the spasticity over the complained of area.

With the barium meal, just a little appendix showed. I am quite sure he had an inflamed appendix, but it was mixed up with the diverticulitis and was part of it. That man has been advised to have a resection from here down to the rectum.

Dr. A. J. Thomas (Shreveport): Two points have been brought out by the discussionists concerning the radiological technic and the radiologic diagnosis of this condition in which, as you will note, two competent radiologists give you different instructions. Dr. Barrow states do not use a barium enema.

Dr. Barrow: Excuse me, I said you could use them but I said be careful.

Dr. Thomas: Dr. Menville says to use them and gives the results of six months' operations in the Mayo Clinic under the late Dr. Carmen who was one of the great radiologists of the world and a specialist in gastro-enterologic conditions.

My idea of this thing is simply this: If your patients are ambulatory, in other words, they can come to your office, and you refer them to the radiologist, I think he should give the barium by mouth and later on check up by the enema. If your patient is bed-fast with probably a rigid abdomen, an acute surgical abdomen in other words, or something approaching that type, it is useless to argue. I don't think there is any argument present as to what the possibilities of mechanical irritation would be with the enema. In other words, in that type of case, I think the contrast meal should be administered by the mouth.

One other point that Dr. Rutledge states was with regard to diverticulum of the appendix. I looked up the literature and it is rather rare. I thought I had such a case as that. It was an ambulatory case in which there were four circumscribed areas of increased density within the lumen of the appendix which was dilated and very much elongated. After the appendix had evacuated, these four circumscribed areas were still present;

in fact, they were present four days. I think it was the fifth day after ingestion of the contrast meal by mouth.

The conclusions I gave to the surgeon was chronic appendix and multiple diverticulum, or diverticula of the appendix. At operation I saw the appendix. It was some eight inches long, a chronic appendix, and it had four fecaliths within it.

I don't see how anyone radiologically could differentiate that type of pathology or lesion from the diverticula. It is practically impossible. It is an operative case and no harm is done in your diagnosis. I just wish to stress that it looks like there is nothing in the practice of medicine that is 100 per cent correct.

Dr. W. P. Lambeth (Shreveport): I want to say just a few words about the diverticula operation that have not been mentioned, and that is the question of anesthesia. You know these patients are all sick. As a rule, they have been sick for some several days.

There are two types of anesthesia appropriate to that type of surgery, I think, sodium amytal, and gas oxygen. By using sodium amytal in this type of patient we get what the surgeon wants. He wants a quiet patient, and he wants a quiet abdomen. By using sodium amytal as a pre-medication, we can give the patient nitrous or ethylene, ethylene with twenty-five per cent oxygen or nitrous with twenty. We have our carbon dioxide for any emergency that might come up.

Certainly, in one particular hospital, the Methodist Hospital in Indianapolis, there wouldn't be any question as to what type of anesthesia to use. It would be sodium amytal and gas. Over in Lafayette, Indiana, there would be no question about spinal. They give spinal. Either one of these anesthetics is the thing to use in that type of surgery.

I remember a case I happened to see in Lafayette, Indiana, a child twenty months old. They thought the child had a ruptured appendix. It had been sick for about a week, and they thought it was an abscessed appendix. They could feel the mass in the side. The question came up about the anesthesia. It was discussed in a good clinic among the surgeons. I happened to be right from Indianapolis where they had been using sodium amytal, and they asked me to give sodium amytal and gas to this patient. After the patient came to the table, they found the pulse up to about 150 and practically no blood pressure. The anesthesiologist at this place happened to be particularly interested, and so was the surgeon, in spinal, and

it was decided to give this child spinal. We gave fifty milligrams of novocain in spinal fluid with twenty milligrams of ephedrin. We opened the abdomen and didn't find the abscessed appendix, but we found a fecalith abscess and diverticula, which necessitated resection of about ten inches of gut. The operation was only thirty minutes. The fellow took out the section of the intestine and the appendix, because the child was actually doing better under the anesthesia than when he went on the table.

I think in this type of case I would recommend either sodium amytal and gas or spinal.

Dr. B. C. Garrett (closing): I wish to express my appreciation of the liberal discussion that paper has had.

There is only one point I might call attention to, the fact that when you get in there to resect the diverticulum, don't look for a big pouch all the way because you won't see it. The opening is usually very small, but about the size of a knitting needle or the lead of a pencil.

CHRONIC APPENDICITIS.*

E. R. NOBLES, M. D.,

ROSEDALE, MISS.

In presenting this subject for your consideration and discussion I will only attempt to touch upon the more prominent features of this disease. My effort will be to correlate the few basic facts that might be helpful in the problem of its diagnosis and management.

Recently certain observations have been noted and brought to our attention which seem to indicate that from forty to fifty per cent of the operations for chronic appendicitis find the patients unrelieved of their symptoms. These figures are calculated to disturb the hitherto complacent attitude in the matter, and represent a challenge to us that they be improved.

The causes of the poor showing are admittedly diagnostic, and insufficient exploration at the operating table; and I will therefore give these two propositions chief consideration in the body of the paper.

*Presented by invitation at Belzoni meeting of Delta Medical Society, October 8, 1930.

No one has yet risen to deny the fact that the acute appendix is the most criminally inclined of all the organs in the abdomen, and if permitted to remain after an attack it becomes a liability to the possessor, either directly or indirectly, in future gastro-intestinal troubles. Indeed, there is strong doubt in the minds of many that if after becoming acutely infected it ever entirely recovers.

We know that this organ has anatomy, histology and physiology similar to the remainder of the gastro-intestinal tract in every detail, with exceptions only in that it has an abundance of lymphoid tissue implanted between the mucosa and submucosa in early life, a blood supply out of proportion to its size, and a narrow lumen.

That it has a minor part in the final digestive processes is accepted, and through its nerve supply it is intimately connected with the other organs of digestion. This is why a disturbance in it may be registered in any of them, but particularly because of this innervation, epigastric discomfort is the most common referred symptom.

In the realm of pathology so far as its chronicity is concerned there is much still in dispute, for there seems to be no common opinion, and much uncertainty exists among able pathologists and clinicians as to what this term chronic appendicitis is meant to imply.

There are those in high places whose opinions are worthy of respect, who maintain there is no pathologic basis for this disease and that it is wholly a myth. There are others of equal rank who insist that it is a left over from a previous acute inflammation; an end-result rather than an active process.

Others insist that the pathology represents a manifestation of general abdominal disease of which the appendix is only apart and offer this as a reason why in certain cases removal of the appendix or gall bladder, or both, does not relieve the symptoms.

However, these opinions may be, there is abundant evidence from other equally notable investigators that the organ can, and does, become affected chronically and that the condition is often seen as a continuing pathological process confirmed exclusively to the appendix.

One suggestive evidence of this is the rapid pathologic change, in some cases over night, from the initial pain, in an acute attack, to gangrene, perforation and adhesions, with no history of a previous involvement. I can reconcile this observation only with the idea that it was an acute attack superimposed upon an already chronically diseased appendix. There are those who believe that in all cases it is the chronic change which provides the soil for the acute infection.

This is of interest chiefly from an academic viewpoint, but for those who admit its physiology and proneness to acute infection, and then deny to it the pathology incident to chronic change, are making of this organ a unique one within the system.

We know that it exhibits chronic change in the presence of the tubercule bacilli, that it becomes affected with carcinoma and actinomycosis, that it has lymphoid tissue similar in many respects to the tonsil, and organ and tissue frequently affected chronically.

It is therefore conceivable that a slowly acting bacterial irritant could find favorable ground here for growth and development, and if drainage becomes interfered with through a partial blocking of the lumen by concretions, fecoliths or foreign bodies, and through kinks or twists by its becoming adherent to adjacent organs from an extraneous infection.

It would then require no wide stretch of the imagination to assume that a balance could be struck here as elsewhere in the body between invader and defender, serving as a focal point from which infection may

spread, or to produce mild toxic symptoms resulting ultimately in a fibrous degeneration with the possibility of the appendix becoming adherent to some distant organ.

We also know that there is a likelihood of the discrepancy between the pathological findings and the clinical symptoms persisting inasmuch as the appendix can remain symptomless and exhibit any or all of the pathological changes claimed for it; or continue to produce symptoms with none of them demonstrable.

There is another source of confusion in trying to fix a certain group of symptoms upon one organ and naming the disease chronic appendicitis, when as a matter of fact many times other etiologic factors are involved in the production of these, and occasionally the disturbance that originated in the appendix is no longer dependent upon it by the time the patient presents himself for examination.

A pathologic picture and a clinical picture would not therefore indicate the same thing. As clinicians we are interested in this because of its bearing upon the multitude of symptoms frequently presented even by one patient for differentiation and serves as a warning to the numerous pitfalls in making the diagnosis.

That the symptoms of this disease may be local, referred or general is a natural assumption when the application of the knowledge of its pathology has been made, but if there should be a demand for an orderly array of symptoms upon which to base the diagnosis it would be impossible to supply them, except to state that they are characterized by their irregularity as compared with signs of other abdominal disease.

It might be said that for the most part these patients suffer from stomach trouble, pain, local tenderness as a rule, gas distress and indigestion; and that these symptoms may be due to three types of derangement, namely, mechanical interference with the

intestines as a result of stasis, reflex disturbance manifested chiefly by pyloric spasm, and toxic absorption from the appendix exhibited by the systemic signs that are often prevalent.

The objective signs are concerned chiefly with the abdominal reflexes, many of which are extremely unreliable. Morris suggests that resonance in many cases is more pronounced on the right side as compared with the left side, and insists that this is due to a continued distention of the cecum and ascending colon caused by innervation fatigue reflected from the chronically irritated appendix.

The history of one or more acute attacks, while greatly helpful, but which may require the talent of a detective to uncover, is not absolutely essential to the diagnosis, and to try to avoid it unless such a history is obtainable is untenable as Larimore has recently stated for four reasons:

1. That an acute attack is certain of diagnosis.
2. That later it may be definitely diagnosed from its history.
3. That a history of an acute attack can of certainty be brought out.
4. That chronic appendicitis is without exception a residual disease.

But in the absence of a history of an acute attack either recent or remote, the diagnosis is made purely on circumstantial evidence, which our legal friends tell us is the best evidence obtainable if it can only be made strong enough, but in fixing guilt upon the appendix, I think the safest ground always is to assume its innocence until after all the possible complicating elements are thought of and ruled out in an honest and intelligent manner, giving especial consideration to those conditions that an abdominal section will not relieve, and in which such a procedure might prove harmful.

There are many of these that are relatively unimportant but should be thought of, and of the more important ones doubtless first place is taken by the neuralgias, intercostal and costo-lumbar, given prominence by the recent work of Carnett and Boles; and their method of differentiating intra-abdominal and parietal tenderness is of value and should be used if there is any suspicion of neuralgia in the lower intercostal nerves.

Pyelitis, right sided, and kinks or twists in the ureter on the right side should be given consideration, it often requiring cystoscopy, ureteral catheterization, and pyelography intelligently to rule these out.

Arthritis of the spine, sacro-iliac strain, intestinal worms in children, afebrile and atypical malaria of the aestivo-autumnal type, tuberculous glands in the right iliac fossae all should be eliminated by measures appropriate to each.

The visceroptotic with a pain in the right side due to the drag on the appendix and cecum, should generally be treated medically, watching especially for the type who presents a general constitutional asthenia, associated with a mucous colitis and ileal stasis.

The surgical lesions most often confused with, or mistaken for chronic appendicitis, are chronic peptic ulcer and chronic cholecystitis and undoubtedly in many of these cases the distinction is impossible. Certainly in some cases a dual or even a triple diagnosis, while not so classical, comes nearer meeting the diagnostic problem.

The lymphatic drainage from the appendix and the possibility of transfer of infection through the portal system to the liver encourages the belief that a chronically damaged appendix is often primary to ulcer and gall bladder infection.

I believe in these cases the greatest single help comes from a complete and discerning history, emphasizing especially the in-

fluence of food upon the pain and epigastric distress generally present and the kind of food causing the most discomfort.

The next step is a well conducted physical examination of the abdomen, in which, of course, the personal equation plays a large part. A radiologic survey of the entire gastro-intestinal tract which should include cholecystography is certainly indispensable in many cases, though in offering indirect rather than direct evidence of disease in the appendix. Contrary to the opinion of some patients the radiologist should not be expected to make the diagnosis and direct the treatment.

The diseases next to be distinguished because of their frequency are those of the right uterine appendages which usually can be ruled out by the history of accentuation at the menstrual time, or by a vaginal discharge, together with a pelvic examination. A retroverted uterus will not infrequently cause pain in the right side due to the strain on the attachments of the cecum and appendix, either because the prolapsed cecum is hanging on them or the ovario-pelvic ligament is pilling on them.

A mobile tender cecum with, or without, coloptosis, if associated with ileal stasis can usually be determined by the radiologic examination.

Incipient hernia should be thought of when confronted with pain in the right side, and other conditions are a mild chronic pancreatitis, carcinoma or tuberculosis of the cecum, tuberculosis of the peritoneum, chronic diverticulitis and early psoas abscess, as well as certain abdominal adhesions.

Of these but few can be diagnostic with any degree of certainty except by inspecting and touch, so when the diagnostic problem is reduced to these we might well observe the dictum "when in doubt operate."

Chronic appendicitis in children has not been given the attention that it justly de-

serves, and the lesion should always be suspected when there is a history of listlessness, a capricious appetite, colicky pains at irregular intervals, with at times nausea and vomiting.

If in addition there is a statement that the child cannot bear anything firm around his abdomen such as a belt, or seems to avoid rough games because of probable injury to the abdomen and the examination reveals tenderness over McBurney's point, we may be reasonably assured that it is a case of chronic appendicitis.

The diagnosis of this disease, as I have attempted to show, should in most cases represent the sum total of a careful clinical, physical, radiological, and laboratory examination, judged conservatively with proper appraisal of each, for none of the symptoms and findings have unequivocal value.

Undoubtedly in a large number of cases of chronic appendicitis seen early or before this low grade infection has caused damage in other organs, when the appendix is acting simply as a local irritant, or perhaps a point of focal infection, or from which is coming mild toxic symptoms, simple removal is followed with splendid results.

In another type when there is a definite pathology in the appendix but in addition adhesions about the cecum, perhaps Jackson's membrane or probably Lane's kink with or without a ptosis of the cecum and colon, simple removal and the severance of adhesions and a fixation or plication procedure best suited to the conditions found in the ptotic cecum or colon is followed with good results in all cases except those followed by formation of new adhesions unfavorably located for good bowel function.

A third type is that in which there is no evident pathologic change in the appendix beyond an obliterating appendix, but the damage has passed on to the gall bladder, stomach, or other abdominal organs.

Simple removal in these cases, unless accompanied by proper surgery to the other damaged organs, will in a very short time be followed by a recurrence of the symptoms.

A fourth type is that in the nervous patient, or in the viscerotonic, or the one who is passing or has passed into a state of chronic invalidism, when the kinked, twisted, adherent or obliterating appendix is only one episode in the general disablement, and it is in these patients in whom surgery alone does not meet the full therapeutic program, for they need additional care; dietary, hygienic, orthopedic maybe, and often mental and social.

Certainly it requires keen judgment in many of these to determine whether surgical or mental treatment should be the first instituted.

CONCLUSION.

In conclusion I will say that this paper on so important a subject is necessarily sketchy. It is intended as a sort of commentary on the salient features of this disease.

One hope was to stress such features as would emphasize the dangers lurking in the fetish of pain in the right side as direct evidence of chronic appendicitis. That it is imperative to go about the diagnosis, not by a poke in the side followed by a conclusion, if there is a history of indigestion; but in a methodical manner before and not after the appendix is removed, if our results are to be improved.

To beware especially of the neurotic with many pains distinguished by the multiplicity of their sites and the variety of their types, in whom if a diligent search be made will be found other evidences of the stigmata of decline.

Also the type common enough who seem to be alright except for the intimacy existing between the cerebral cortex and the right iliac fossa.

That it is essential to distinguish the surgical from the non-surgical lesions that might be mistaken for chronic appendicitis, and that once an operation is decided upon unless a long enough incision be made to inspect with the least amount of traumatism all the abdominal viscera, the patient has had inadequate surgery.

Note: To those interested in the subject of chronic appendicitis, I would recommend articles, pertinent to the subject, written by the following men: John B. Deaver, H. C. Royster, C. A. Murphy, J. B. Carnett and R. Boles, J. A. Larrimore, H. A. Koster, Arthur Hertzler, and R.T.Morris. These papers have appeared at various times in the American Journal of Medical Sciences, Southern Surgery, Canadian Medicine, Southern Medical Journal, New York Medical Journal, and the Journal of the American Medical Association.

ACUTE PERFORATION OF PEPTIC ULCERS.*

C. WALTER MATTINGLY, M. D.,†

NEW ORLEANS.

Ninety-one cases of acute perforation of gastric and duodenal ulcers were admitted to Charity Hospital (New Orleans) from January 1, 1926, to October 2, 1930. Seventy of these ulcers were located in the duodenum; the remaining twenty-one were gastric. Of the ninety-one patients, fifty-nine were white and thirty-two colored. Only two of the cases reported here occurred in the female.

The cause of acute perforation is unknown. In the more recent literature, the etiology of perforation of peptic ulcers does not occupy much space. O'Flynn cites a case which he says supports the theory of congenital predisposition to duodenal ulcer. The perforation was sudden in a boy fourteen years of age.

According to recent studies by Meyer and Bram, over-distension of the stomach by food or manual exertion had comparatively little to do with the actual rupture

in their series of sixty-two cases. On the contrary, eight of the ninety-one cases here reported perforated soon after eating a heavy meal or after drinking excessively.

SYMPTOMS AND DIAGNOSIS.

In seventy-five cases, this abdominal catastrophe occurred with an onset that was of startling suddenness. The picture is readily brought to mind by relating the story of a man who, while out in his lot to catch a mule, experienced a most excruciating general abdominal pain that caused him to drop to the ground in his own track. The man gave a further history of being so doubled up with pain that he had to be carried to his home. I have observed that a number of these patients complain of upper abdominal pain radiating to the posterior aspect of the neck. (A similar finding is present in ruptured ectopic pregnancy). Pain in the neck or in one or both shoulders was present in thirteen of the cases reported here.

It is surprising to note how infrequent vomiting is present in acute perforations of these ulcers when nothing is given orally. Thirty-three of the patients vomited previous to operation, but most of these gave a history of having taken purgatives or other medication previous to hospital admittance.

In sixty cases, there was a past history of dyspepsia varying in duration from five days to fifteen years. The average duration was three years and seven days. The remaining thirty-one patients gave no complaint previous to perforation. Of the seventy duodenal ulcers, 33 patients gave a history in keeping with such an ulcer; two others gave a gastric ulcer history. Of the twenty-one cases of gastric ulcers, six gave symptoms referable to such ulcers; eleven did not; and two gave duodenal ulcer histories.

Early in the picture, the patient generally presents an "agonized" look, a normal pulse, and a normal or subnormal temperature. Temperatures of forty cases

*Read before the Orleans Parish Medical Society, October 27, 1930.

†Junior House Surgeon, Charity Hospital, New Orleans, La.

taken previous to operation averaged 98.6° F.—the extremes being 101° and 95.8° F. Sixty cases had a pulse rate that averaged ninety with the highest 132 and the lowest 59.

Examination revealed a true board-like rigidity of the abdomen in fifty-one cases. This rigidity is particularly noted early after perforation; later the general picture is obscured by complicating peritonitis and meteorism. The presence of a pneumoperitoneum was shown by diminished liver dullness in twelve cases. Roentgen-ray examination showed the presence of sub-diaphragmatic air in eight of the thirteen cases so examined. This roentgen-ray examination is of great importance in the diagnoses of early and late cases.

Another very important procedure is the rectal examination. This showed in the

majority of the cases a marked peritoneal tenderness in the region of the rectovesicle pouch.

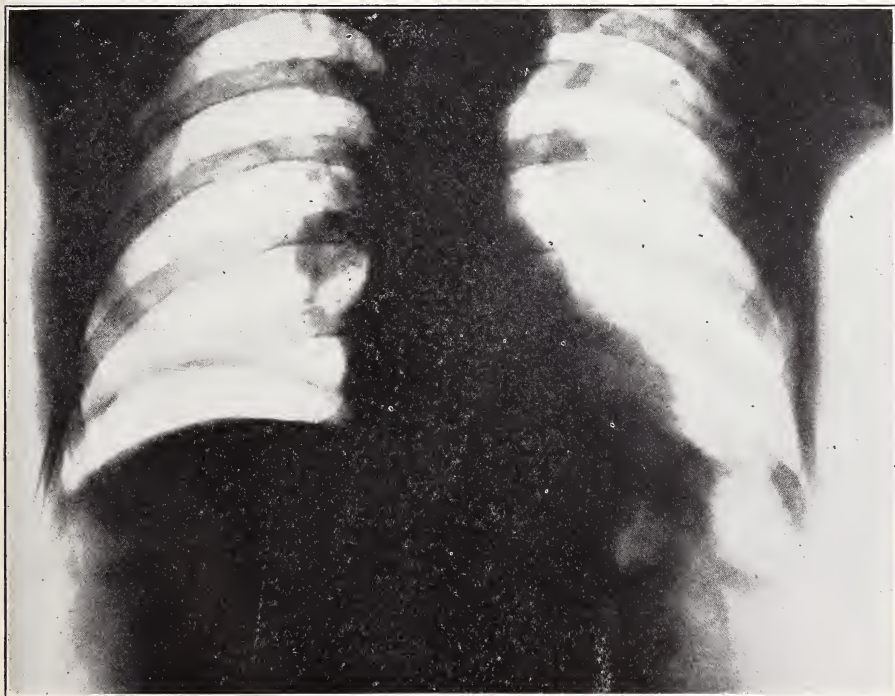
The white cell blood counts of twenty-three patients taken previous to operation showed an average total of 15,495. The highest total white was 31,250 and the lowest 8,500. The polymorphonuclear leukocytes averaged 85.6 per cent with a high count of 91 per cent and a low count of 75 per cent.

The blood Wassermann was strongly positive in six and negative in sixty-eight cases.

TREATMENT.

Immediate surgical intervention is recommended.

I am in full accord with Podlaha who pleads for the simplest operation, because



1. Erect postero-anterior view of the lower chest and upper abdomen showing the presence of air beneath the diaphragm.

the indication is vital, not radical—suturing the opening, covering with a flap of omentum, and cleaning out the peritoneum.

Pannett, in his recent edition of surgery of gastro-duodenal ulceration, states that simple suturing has been done more frequently than any other operation. The other method of treatment described by Pannett is that of suturing together with gastro-jejunosomy. Deaver and Pfeiffer are quoted as being in favor of using this method in early cases with little shock.

All of the ninety-one cases of this series were treated surgically. Eighty-seven of these cases perforated on an average of twelve hours and twelve minutes prior to surgical intervention, the extremes being two and seventy-eight hours. The time interval between perforation and treatment was unknown in the four remaining cases.

The surgical approach on seventy-seven of these was through a high right rectus muscle splitting incision, and in nine through a right paramedian incision. In eighty-seven cases the ulcers were first cauterized and then sutured with paraffinized silk in all cases except one in which linen was used. In suturing the ulcer, purse strings or interrupted sutures were used. The raw surface was covered by means of Limbert sutures or an omental flap, when the latter was available. In some instances, both were used. Two cases were treated by simple closure with pyloroplasty; another by closure and appendectomy; and the remaining one by closure and enterostomy. We have yet to find where simple closure of the ulcer in this manner caused marked encroachment upon the lumen. All roentgenograms, that is gastro-intestinal series, taken post-operatively failed to show any gastric retention at the end of six hours.

Following the above closures, the peritoneal cavity was cleaned as far as possible with the suction apparatus. All but six cases were drained. The drains of the first cases of the series were placed in the

region of the perforation; but, now when drains are used, they are generally placed so that one is in the right subphrenic fossa and another in the subhepatic fossa (Morrison's pouch). In the last two cases of this series, the peritoneal cavity was cleaned out as much as possible with the suction apparatus and five hundred to one thousand cubic centimeters of warm, sterile, normal saline placed in the abdominal cavity. This fluid content was then aspirated and the abdomen closed without drainage except for a smaller rubber tissue used to drain the subcutaneous area. I now use rubber tissue to drain the subcutaneous area due to the fact that thirty-four cases in this series had infected wounds post-operatively.

Abdominal fluids taken for bacteriological study were negative for organisms in thirty-seven of the forty-six cultures made. Of the nine that were positive, four cultures were positive for staphylococcus and streptococcus; two for colon bacillus; one for streptococcus; one for staphylococcus, streptococcus and colon bacillus; and one for colon bacillus and pneumococcus.

The anesthetics used were: ether in sixty-seven cases; local, six; spinal, sixteen; local and ether, one; and spinal and ether, one. Of late, spinal (novocain) has been used in the majority of cases with good results.

Orders for the average case for the first twenty-four hours post-operatively were:

Nothing by mouth for forty-eight to seventy-two hours for the first cases of this series. Of late, tap water has been allowed in small amounts, from twenty-four to twelve hours up to immediately after the patient reacts. The average elapsed time before fluids were given by mouth for the entire group was thirty-one hours and fifty-four minutes with a maximum wait of ninety-five hours and a minimum of zero, that is fluids immediately.

Give by hypodermoclysis 500 c.c. normal saline and 500 c.c. 10 per cent glucose

every eight hours and thereafter twice daily for two or three days. In eight cases, one to eight infusions were resorted to during the post-operative treatment.

Loosen drains (if any) daily and remove after seventy-two hours. Remove subcutaneous drains in thirty-six hours.

Elevate head of bed twelve inches.

Give morphine sulphate in adequate dosage for rest.

Pass Jutte tube and allow same to drain.

LATER TREATMENT.

After the first day, water, strained soups, fruit juices or cold drinks were given in small amounts up to about the third day. A modified Sippy diet was started on the third to the seventh day; and Sippy diet powders began on the seventh to the thirteenth day.

Nine transfusions were given in this series.

A heat tent was used over the abdomen in a few of the cases.



2. Erect lateral view of the lower chest and upper abdomen showing the presence of air beneath the diaphragm.

The complications that developed in this group of ninety-one, other than those mentioned under the causes of death were: uremia, 1; diarrhea, 3; eviseration, 2; pneumonia, 4; second acute perforation, 1; general peritonitis, 1; and gastric hemorrhage, 1.

The average stay in the hospital, exclusive of those dying in the hospital, was 24.5 days—the longest 84 and the shortest 11 days.

Four of the patients returned later and gastrojejunostomies were performed.

In the series there were thirteen deaths, a 14.2 per cent mortality.

The causes of death and the duration of life following primary operations are as follows:

1. Perforated gastric ulcer, subdiaphragmatic abscess, pleurisy with effusion, tertiary syphilis; forty days.
2. Acute perforation of gastric ulcer and general peritonitis; four days.
3. Acute perforation of gastric ulcer; three days.
4. Acute perforation of gastric ulcer in a morphine addict (twelve grains daily); sixteen hours.
5. Anesthetic (ether); three hours.
6. Ruptured duodenal ulcer and general peritonitis; thirty-five hours.
7. Perforated gastric ulcer, subphrenic hematoma, right empyema and toxemia; eighty-three days.
8. Perforated gastric ulcer, pneumonia, and chronic myocarditis; seven days.
9. Acute perforating duodenal ulcer, probable peritonitis and syphilis; forty-six days.
10. Ruptured duodenal ulcer, general peritonitis and acute nephritis; seventy-eight hours.
11. Acute perforation of duodenal ulcer, and general peritonitis; thirty-six hours.
12. Ruptured gastric ulcer, subdiaphragmatic abscess, local peritonitis, acute ulcerative gastritis, acute myocarditis, acute nephritis and cirrhosis of the liver; fifteen days.
13. Acute perforation duodenal ulcer, peritonitis; three days.

The average elapsed time between perforation and the time of operation in twelve of the above deaths was 22.8 hours. In the remaining case the time could not be determined.

BIBLIOGRAPHY.

- O'Flynn, J. L.: Perforation of chronic duodenal ulcer in a boy. *Brit. Med. Jour.* 1:42, 1925.
- Podlaha, J.: Perforated gastric and duodenal ulcers. *Casopis lek. cesk.* 64:11, 1925.
- Meyer, K. A. and Bram, W. S.: Acute perforation of gastric and duodenal ulcers, sixty-two cases. *Amer. Jour. Med. Sci.* 171:519, 1926.
- Pannett, C. A.: Treatment of perforated gastric ulcer. *Lancet* 1:1271, 1926.
- Pannett, C. A.: Surgery of gastro-duodenal ulceration. Oxford Univ. Press, 1926.

DISCUSSION.

Dr. Urban Maes (New Orleans, La.): Dr. Mattingly has presented such an unusual series of cases, 91 instances of perforated peptic ulcer, that there is little to add to the discussion. It may not be amiss, however, to emphasize one or two points. In the first place, it is generally agreed that this is a condition which is almost uniformly and inevitably fatal unless it is recognized and recognized promptly; the mortality is exactly proportionate to the promptness or the delay of diagnosis. In this series the average time of operation after perforation was 22 hours, and the mortality was 13 per cent. This is really an extraordinarily good showing if we consider the type of patient concerned and the additional fact that many of them came from the country, and so were not operated on until peritonitis had been added to the original complication and there was a dual condition to be dealt with.

From my own experience and from the statistics of the hospitals with which I am connected I would say that only about 6 per cent of these patients fail to give a history of pre-existing gastric disturbance. The number in which the first manifestation of an ulcer is its perforation is relatively very small. Diagnosis is correspond-

ingly simpler when such a story can be elicited. Moreover, the symptoms are characteristic, very sudden pain, very violent pain, and prompt, board-like rigidity. When such pain and such rigidity are present, even if corroboration is lacking, surgical intervention is both justified and demanded: it is better to open an abdomen unnecessarily than to fail to intervene in a patient with a real perforation.

It is rather generally the custom to speak of these patients as being in a state of shock. As a matter of fact, shock is a particularly bad word to use in this connection, because, in its strict surgical sense, at least, it is not present. Shock implies a low blood pressure and a rapid pulse, and these are never manifested in the early stages of a perforation. The pulse rate, as a matter of fact, is a most misleading thing in these cases; the fast pulse so characteristic of abdominal disasters is never present until hours later, sometimes eight hours later, and then it indicates peritonitis and not perforation. If we wait for the pulse rate to change before we intervene, we shall lose many patients.

The majority of cases in this series were at least 12 hours old, and many of them had gone even longer. Therefore excellent judgment was shown in simply closing the perforation and not attempting the more radical procedures which would have been justified if the patient had been seen earlier. When peritonitis is present, the least that can be done is the best. If such cases are seen within two or three hours of perforation, then closure of the ruptured ulcer, plus gastro-enterostomy for the relief of symptoms, is justified. Mere closure of the perforation is a life-saving measure, but it seldom terminates the trouble. It is rather difficult to prove this fact in the type of patient handled at Charity Hospital, for the follow-up is inadequate if it is done at all, but my impression from my private work is that usually a recurrence can be expected at the end of three months. When this happens, we may regret our conservatism, but it is unquestionably wiser, even if it means a second operation later, for in the face of peritonitis only the most necessary surgery is warranted.

I am not criticizing Dr. Mattingly's procedure when I say that I do not care to drain the majority of these cases, though his statement that the abdominal fluids were sterile in the majority of instances proves my point. Many perforations occur on an empty stomach and the contents of an empty stomach are nearly always sterile; we are, therefore, dealing with chemical and not bacterial factors, and in my opinion the indication for drainage does not exist. When the pylorus is occluded by carcinoma, for instance, or when per-

foration has occurred with a full stomach, the situation is different, but when the stomach is empty or nearly empty, we are safe in assuming that the gastric contents are not contaminated, and the majority of these cases are better off without drainage.

Dr. Mattingly is to be congratulated on the presentation of an unusual and very interesting series of cases, and on the remarkably good judgment that must have been displayed to produce a death rate of only 13 per cent in patients who had perforated on an average 22 hours prior to operation.

Dr. Mattingly (closing): I appreciated the discussion immensely. There is one point that should be stressed and that is immediate surgical intervention. I now take these cases directly from the Admitting Room to the Operating Room, doing the blood work and roentgenograms on the way. This series of cases was handled by the Resident Surgical Staff.

HAY FEVER A SPECIALTY.*

W. P. LAMBETH, M. D.,

SHREVEPORT, LA.

In the treatment of hay fever one is confronted with many scientific problems. These problems, as in all branches of medicine, lead to endless amount of work, study and research. In fact, the field is so wide, literature so limited and the sections of the country so varied as to climate and flora, it becomes an individual problem in every section of the country. The one doing this work is forced to do experiments, research and surveys in, and about, his locality before he can exercise any judgment as to the treatment, test and diagnosis of this disease. In order to comply with these requirements, one has to keep abreast with the progress of internal medicine and allied branches. He must have a working knowledge of the animal and plant life in the community in which he wishes to practice this specialty.

The men who are getting results in the treatment of hay fever and allergic diseases are the ones who have devoted most

*Read before the Louisiana State Medical Society, Shreveport, April 29-May 1, 1930.

time to the study of this disease, and the physician who has the time and patience to devote to each individual patient (any one suffering with hay fever is an individual problem) as to his history and symptoms will most nearly arrive at a correct diagnosis. But he must have a fundamental knowledge of allergic diseases and keep up with the ever progressive stride of medical education, and have a working knowledge of the reaction of food and animal emanation when entering the human body. It is necessary to have at his disposal a botanical survey of the plant life of his particular area as well as a chart showing the pollen in the air at all seasons. This data can be obtained from United States Weather Bureau or by personal observation.

Without this kind of data we are going to meet with failures and disappointments in the diagnosis and treatment; naturally with these disappointments go criticisms both from the patient and doctor, which in turn have their reactions on the public, and which throw a damper on the fellow who is trying to develop the field and put it on an educational plane.

You will note that the subject of this paper is "Hay Fever a Specialty." After five years of personal experience, intensive research and study of individual cases, some of which respond readily to treatment, others I have found very obstinate; especially so if not carefully tested and thoroughly treated, and from this experience I feel justifiable in stating that this trouble is not an ordinary condition and should be handled by one with considerable experience. For the sake of simplicity I am going to classify the subject in two headings. 1. Hay-fever due to pollen; 2. Hay fever due to other causes. In making this classification I do not wish to create the impression that pollen hay-fever is sharply differentiated from other types, because it is a fact that a great percentage of patients sensitive to pollen are also sensitive to other substances. At present, the physio-chemical reaction of the materials

that cause hyper-sensitiveness in individuals is not so clearly understood that we can make a sharp differential classification. I do want to emphasize that the whole field of allergic diseases as to cause, symptoms and treatments must be considered before attempting any classification.

I will not take up your time in going into the various branches of hay-fever and allergic diseases, but will consider only what we call hay-fever proper, or hay-fever due to the pollen of plants, as there are certain seasonal variations in the pollination of plants. I make the following classification:

1. Winter—pollen from trees as cedar and elm.
2. Spring—*a.* Trees—oak, box elder, cotton wood, elm, walnut.
b. Grass—blue grass, orchard grass, timothy.
c. Weeds—red sorrel, lambs quarter, dacar.
3. Summer — grass — Johnson grass, Bermuda grass and a few weeds.
4. Fall—rag weed group. Most important of these giant, short, marsh elder, cocklebur.

In making this classification as to the study of hay-fever and treating the diseases, it is supposed that one knows enough about botany to differentiate some of the families of grasses and weeds and be able to locate certain weeds in a group or family. One also must know the geographic distribution of these plants and their time of pollination, as well as when and how to gather pollen for treatment. It is also necessary to know how to plate and count pollen from the air and how to differentiate the pollen. These facts require quite an extensive botanical survey and it is almost impossible for an individual practicing medicine to accomplish this single handed, but with the aid of an able botanist he can in time assimilate all the data neces-

sary to make the next important step—a diagnosis.

In order to arrive at a diagnosis it will be necessary to mention certain points of technic which I classify under the following headings: 1. Patient's history; 2. botanical survey; 3. skin test; 4. reproduction of the disease. Under patient's history, I try to get (a) family characteristics; (b) symptoms of the disease; (c) season and duration of illness. Botanical survey—I determine (a) the plant life in the community from which the patient comes, (b) season of pollination and pollen found in the air. Skin test should be made after this information is determined and tested only with substances found to be present at the time patient has symptoms. This statement refers only to pollen. Food and animal emanation is dealt with separately, depending on history of patient. The disease may be reproduced at any time by bringing patient in contact with the substance found. From this technic the diagnosis is fairly simple, because from the history and symptoms I know the patient has hay-fever, also the season of the year the patient suffers, and I know certain plants pollenating at that time. This information being the key to my diagnosis, I proceed to make the test with pollen found in the air at that season and from the plants growing in the locality and pollenating at that time. For instance, I have a patient in Shreveport giving a history of hay-fever during the months of July and August. From experience I know that Johnson grass is pollenating and can plate it from the air during this season. I proceed to make a skin test with Johnson grass pollen and get a 3 plus reaction with the usual area of hyperemia, a raised center with pseudopods, and can produce the disease by mopping the nasal cavity with some of the pollen; therefore I say that this patient is sensitive to Johnson grass pollen and most likely her trouble is due entirely to this cause.

After the diagnosis has been established by the eliminative technic it will be wise

to consider the treatment under the following headings: 1. Pollen extract. 2. Ultra violet radiation. 3. Drugs. 4. Surgery. Since the illness is due to Johnson grass, I make a 5 per cent stock solution in glycerine and saline. From the stock solution, dilutions for treatment are made, which run from a 5 per cent solution to a 1-50,000 solution. Also I find the patient is sensitive to, say three weeds of the same family, reactions running 1 plus, two plus, three plus, I make a 5 per cent extract of each of the three pollen and make a solution in proportion, as—1 c.c. of one plus, 2 c.c. of two plus, and 3 c.c. of three plus, then make from this percentage mixture dilutions for treatment.

The technic of treatment with pollen extract requires close personal observation of your patient. In the first place we are dealing with a powerful drug insofar as this individual is concerned. In the second place you must have such a drug if you expect to get any appreciable relief. The theory of this treatment is to build up the resistance in your patient with your pollen solutions to a higher degree than the patient meets with normally. If you can do this and your pollen extract contains all the pollen the patient is sensitive to, you can expect relief. You need not expect relief if you use the 15 dose drug store package. The treatment should be given in increasing dosage every other day, but you must remember that the dose today depends on reaction of previous dose. There are several factors at this point to be considered, and can be determined only by personal observation of your patient, a knowledge of the reactions of pollen extract and your pollen chart. A high pollen count and a four plus reaction from previous treatment will caution you as to the increase in dosage.

Ultra violet radiation, in my opinion, will help the cause and should be used both locally and general. This form of therapy is not thoroughly understood but is being

used with considerable relief to the patient; I believe only symptomatically.

The question of drugs will have to be considered (1) because drug therapy in previous years has always made the patient worse. (2) Because only a mild oily preparation should ever be used in the nose. (3) Because it is necessary at times to use such drugs as adrenalin, ephredin and atropin for symptomatic relief.

Surgery—In recent years the tendency of most rhinologists has been to get away from nasal surgery in hypersensitive individuals. Nasal surgery on these patients frequently leads to more pronounced symptoms with permanent anatomical and pathological lesions. The anatomy and physiology of the nose is very essential to the human body and should be left intact. We have our nerves of the sense of smell, our blood vessels and epithelial cells for warming and moistening the air that enters the lungs. Anything that tends to impair this function leads to more pronounced symptoms of the disease and often with an extension of the trouble into the bronchial tree and asthma.

The old saying, "The doctor buries his mistakes," does not work here. In spite of their suffering and agony these asthmatics do not die, but continue calling on the doctor for relief, and mostly at late hours of the night. They continue their faithful treatment with their doctor until all sympathy is lost, when they seek relief from the various advertisements and quacks. These individuals finally settle on some nostrum for relief and continue blaming the surgeon for their troubles.

It is not uncommon for an asthmatic to give a history of a mild type of hay-fever for a few weeks in summer prior to operative procedure, but after the nose operation the hay-fever became worse, and asthmatic attacks begin to occur at any season of the year. But in spite of these conditions we find patients where surgical treatment is necessary. In chronic cases

where the secretions are being dammed up, allowing bacteria and pus to enter the sinuses, we must have drainage. Any further surgical procedure often times leads to sorrow.

In conclusion will say that since you have learned the fundamental principles of hay-fever, having given the subject a thorough consideration, as to the study of botany and the distribution of plants, the methods in which pollen may enter the human body and the interpretation of the skin test. Having fixed in your mind the basic principles of allergic diseases and the differential diagnosis of internal medicine, you should have as good results in treating hay-fever as any other branch of medicine. But to attempt to treat hay-fever without obtaining this information you are bound to meet with disappointment which will cast another shadow over this field—"Hay Fever a Specialty."

DISCUSSION.

Dr. B. G. Efron (New Orleans, La.): I entirely agree with the absolute necessity of a pollen survey before doing anything with hay fever. We have found in a pollen survey of New Orleans started two years ago and finished now the prevalence of a tremendous number of weeds, something like fifty grasses and other weeds. In New Orleans we have very little frost and pollens can cause hay fever in all seasons of the year.

However, I have personally found after rather an extensive experience with hay fever that the skin tests are often unreliable, and in a paper about to be published I have devised an entirely new method which the essayist has discussed, namely, the nasal method. We believe we have definitely proven that the skin tests while valuable in some instances are practically useless in many other cases.

For example, in the series of twenty continuous cases of fall hay fever we have found that marsh elder in only one instance produced hay fever symptoms when dry pollen was sprayed in the nose, whereas the skin reactions were often positive. Cocklebur produced symptoms to a mild degree in only thirty-three and one-third per cent of the cases, but in all cases except one it produced symptoms in individuals who reacted markedly with ragweed pollen.

Furthermore, usually whenever an individual reacts to one ragweed, he reacts to the other rag-

weed. We found in this series of cases that nineteen out of these twenty who reacted to ragweed, reacted to one as well as the other, but in one case the individual reacted only to the large ragweed and did not react to the small ragweed. In only two cases were we unable to reproduce symptoms in individuals who have seasonal hay fever.

We have used an adequate number of controls, and we know that pollen sprayed into the nose of a normal, not hypersensitive individual will not produce hay fever symptoms. Allergic patients are sensitive to the things that are innocuous to the great number of people in the community.

Another point brought out by the essayist is the question of treatment. Many allergists believe that if you use one grass it will protect against all grasses. There is no doubt that colateral protection exists, but I believe that the best results will be obtained when specific antigens are used.

Also, we have found that although the skin tests can give a three plus to Johnson grass, two plus to Bermuda, and one plus to wormwood, if you spray the pollen you find the wormwood may give the symptoms and the other two pollens do not give symptoms.

Results have so far been very encouraging, and I believe that the amount of relief given justifies further research on this ever increasing problem because it is becoming a question of tremendous importance.

Dr. Martin (Donaldsonville, La.): Hay fever, in my humble opinion, is a case where we have the cart before the horse by using pollen injections in the treatment. I don't believe there is a single case of hay fever that does not have an infection or an obstruction in the nose before they have hay fever. I heartily disagree with the doctor on the surgical treatment of hay fever.

Being on the staff at the Charity Hospital on ear, nose and throat, just across the hall from Dr. Thiherge, I have the opportunity of seeing hundreds of cases of hay fever, and I have yet to see one single case of hay fever where I did not see pus trickling down from some of the sinuses of the nose. If these sinuses are properly cleansed and the infection is gotten rid of, you are going to get rid of your hay fever, and if you don't do that you are not going to get rid of your hay fever. You will have it as long as you live regardless of how many pollen injections you take.

Why not try to clean the sinuses out as they should be cleaned? There is where the problem lies. We operate on them and operate on them, and they come back to us with the hay fever. We relieve them. Some cases we cure. Those where

they are able to clear up the infection are cured, but in my opinion if the infection is not cleared up either by treatment or operation the hay fever will never be permanently cured by pollen injection. Being personally a sufferer of hay fever, I know I have an obstruction in the nose; I know I have a sinus infection. When my sinus flares up, my hay fever starts. I have taken the treatment. It gives me relief, but it certainly will not cure me if I don't get rid of the sinus infection.

Dr. R. McG. Carruth (New Roads, La.): While I have never specialized alone the lines indicated in the treatment of hay fever, yet as a general practitioner for half a century, I have noted its steady and uninterrupted growth and spread. Whether in various individuals, it be due to pollen or to emanations from many different things, stables, chickens, and other animals that we have an idiosyncrasy for, I believe the main fault lies with the patient. That makes me agree, to a great extent, with Dr. Martin, who just preceded me.

A little more than ten years ago I read a paper in this city on the subject of race degeneration. I said in that paper that the genus homo, especially the white race was going the way of the Egyptians, the Babylonians and the Sumerians. Very recently, Mr. Stanton Coblentz, in his work, *The Decline of Man*, says that we are going the way of the dinosaur, the ichthyosaur, the tyrannosaur, the sabre toothed tiger and other extinct animals that have outlived their usefulness according to the great scheme, and lost their ability to adjust themselves to changing conditions. There seems to be something in every race, in every species, that has within it that which makes for its own destruction. By our rapid advances the last few years, due to our inventive genius and our wonderful scientific achievements, our civilization has built up a vast machine, mechanical and industrial, the various parts of which have been adjusted so thoroughly to themselves that they move with the accuracy of a Swiss watch, but we have signally failed to adjust ourselves to this machine. The social order has fallen to pieces and we are awakening to the fact that we have constructed a great Frankenstein monster that is turning upon us and devouring us.

Whether there is a way out, I do not know. I believe if there ever is a cure discovered, or an amelioration for hay fever, it will be along the lines indicated by the science of endocrinology. We have outrun our endocrines; we seem to have reached a senescent stage, and unless we inaugurate most radical changes in our habits of life, a complete reorganization of our industrial, commercial, educational and social systems, our civilization is wrecked and the final doom of the white race is assured.

Dr. W. P. Lambeth (closing): In listening to this discussion on hay fever, I agree with all these fellows that it is a very difficult thing to work out. Some fellows have different ideas as to technic.

The first fellow mentioned that the skin test wasn't of much value. I say there is no one thing in hay fever that is of much value in diagnosis. Remember what I told you, study all this question of hay fever, and allergic disease, and all the tests and researches that you have, and you will eventually come to a diagnosis.

I will say this, too: Once you have any condition of the nose that is considered more or less of a serious pathological condition, I don't believe that nose ever gets 100 per cent well. The only cases that I have condemned are those on which the surgeons have operated on the nose.

I will read you this point: "It is not uncommon for an asthmatic to give a history of a mild type of hay fever for a few weeks in the summer prior to operative procedure, but after the operation on the nose the hay fever became worse. The asthmatic attacks began to occur at any season of the year, but in spite of these conditions we find a patient where surgical treatment is necessary, and I recommend only drainage."

Dr. Martin: Have you ever seen a case of hay fever get entirely well?

Dr. Lambeth: I just made that point, that I never have.

NON-UROLOGIC SYMPTOMS DUE TO URINARY LESIONS.*

E. WEINER, M. D.

ALEXANDRIA, LA.

How often the urinary tract is overlooked in the consideration of intra-abdominal symptoms is made clear when we observe (1) that in a series of 50 cases reported by Hunner, 34 had been operated previously, and of these 27 were not relieved of their symptoms. Four of the 27 had each had three operations, without improvement. Walther reported a series of 13 cases, 9 of whom had been operated previously for various complaints, 5 of them twice, without relief. There are others who report similar experiences. One is almost certain to miss, in many vague abdominal cases, the proper diag-

nostic trail unless both the frequency of the lesion and the protean manifestations are constantly borne in mind. One rarely recognizes a thing about which one does not think or for which one does not seek.

Some of the lesions, symptoms of which may be very confusing with other intra-abdominal conditions, are the following: Stricture of the ureter; ureteral kinks (due to inflammatory bands and nephrop-tosis); obstruction caused by pressure on the ureter by abnormally placed vessels (aberrant vessels); ureteral and kidney stones; hydronephrosis; all infections of the urinary tract such as pyelitis, pyelonephritis, pyonephrosis, perinephritic abscess, ureteritis, cystitis, etc.; movable kidney; tumors and tuberculosis of the kidney; polycystic disease of the kidneys; and others.

As an explanation of some of the confusing symptoms to which lesions within the urinary tract may give rise, we should remember that embryologically the urinary tract from the kidney to the urethra is one continuous tube; that the innervation of this tract is derived from the sympathetic system and is in intimate association with the nerves supplying practically all organs within the abdominal and pelvic cavities (2). These simple facts serve as a basis of explanation for the frequency with which urinary lesions may be confused with symptoms which seem to arise from other organs. The pain of renal or ureteral stone reflected to bladder, testicle, or penis, is the common knowledge of all; by the same token any urinary lesions other than stone may be and often is mirrored in bladder, urethra, or one of the pelvic or abdominal organs. Vesical frequency or irritation no more connotes vesical inflammation than does nausea or vomiting indicate gastritis.

One of the very frequent conditions of the urinary tract which is often overlooked is stricture of the ureter. This is a common pathological condition that should be of interest to every medical man. Patients

*Read before the Rapides Parish Medical Society, November 3, 1930.

suffering with this lesion are frequently seen by every active physician, whether he be engaged in general medicine or one of the specialties. Usually these patients first consult the family physician.

The symptoms of ureteral stricture or other ureteral obstruction are very variable but pain in the abdomen or back and frequency of urination and dysuria are the most frequent complaints. So many of these cases are referred to the general surgeon because the symptoms may simulate exactly those of appendicitis or gall bladder pathology, or other surgical condition of the abdomen. Often the pain is in the pelvic region and is associated with low backache and dysmenorrhea, and so many of these cases go to the gynecologist. Stricture patients usually have an exacerbation of symptoms during pregnancy and obstetricians have to deal with the conditions. Again, the gastrointestinal disturbances are the most prominent features and the patients are sent to the gastro-enterologists. Pain due to ureteral stricture is often referred to the sacro-iliac, hip, and thigh regions, and therefore the advice of the orthopedists is sometimes sought. The ophthalmologists are often called upon to relieve headache, which is frequently a common complaint. Neurologists see many of these patients, who after a long period of suffering have developed neurological symptoms.

It is sometimes possible to make a tentative diagnosis of ureteral stricture or other ureteral obstruction from the history and physical findings; but, the ultimate diagnosis must, of course, be made by cystoscopic methods with the use of the roentgen-ray (3). The manifestations of this condition as those of many other urinary lesions are so varied that whenever one is in doubt as to the exact diagnosis of an abdominal or pelvic complaint, recourse should be had to a complete urologic investigation for the purpose of at least ruling out a possible urinary lesion.

In infants, as in adults, urinary stasis predisposes to, and perpetuates infection of the urinary tract. Stasis is predominantly the result of obstruction, and in infants the majority of urinary obstructions are found along the course of the ureter.

The clinical picture is varied and is quite apt to be misleading. Lumbar pain, loin ache, renal colic, hematuria, dysuria, and frequency are uncommon, or are at any rate, symptoms difficult to elicit and evaluate in children. Commonly, the clinical picture is that of so-called "acute pyelitis," complicated by an upper respiratory infection, or a gastro-intestinal upset. Without repeated urinalysis and usually a urologic study, a diagnosis cannot be made. From the history, onset, and clinical observations, one cannot differentiate this condition from early pneumonia, meningitis, encephalitis, otitis, influenza, or any of the acute infections of childhood. A persistent or recurring pyuria is significant. Approximately 2 per cent (4) of infants suffer from ureteral obstructions which predisposes to infection and renal destruction. In adults the percentage is higher. Therefore, it is important that all cases of persistent pyuria be given a complete urologic investigation.

We shall just mention a few of the other urological conditions which may be mistaken for diseases of other organs. Urolithiasis may cause pain anywhere along the urinary tract, and also referred pain to any other abdominal or pelvic viscera. There may be vomiting, dyspepsia, fever, and, in children, often diarrhea. There is not always blood in the urine, nor a pyuria. It is a condition that should always be looked out for in abdominal or back pains. However, there are some cases, the so-called "silent" stones, in which there are no symptoms. In childhood urinary stones occur fairly frequently. Holt reports small stones frequently voided during the first two years of life, and in a study of a thousand autopsies

found calculi quite common in infants (5). Unquestionably such conditions occur more frequently than reports in the literature would indicate. Everything has its beginning, and too often conditions are not recognized in early life, which when allowed to exist cause irreparable functional and organic damage by the time adult life is reached and a diagnosis is made. Any child with an obscure abdominal complaint, especially if it be pain, should at least have the benefit of urinalysis and roentgen-ray examination, as the majority of cases of urinary calculus would be revealed.

Acute right-sided pyelitis is frequently mistaken for appendicitis (6), and not infrequently operations are unwisely undertaken because insufficient attention is paid to the symptoms. The points in differential diagnosis can be tabulated as follows:

Acute Pyelitis.

1. Initial rigor—the rule.
2. Temperature 103 degrees or more.
3. Pain on micturition.
4. Increased frequency of urination.
5. Pus in urine.

Appendicitis.

1. Rigor unusual.
2. Temperature as high as 103 degrees uncommon.
3. Urinary symptoms inconstant.
4. Local rigidity frequent.
5. No pus in urine.

However, one must remember that both conditions may be present at the same time. Also, pyuria may only be a sign of a more serious lesion such as pyelonephritis, pyonephrosis, renal tuberculosis or tumor; or, the pyuria may be secondary to a urinary calculus or some obstruction in the urinary tract.

Acute right-sided hydronephrosis is sometimes misdiagnosed appendicitis with abscess formation. There are usually urinary symptoms, such as scanty urine,

pain during or frequency of urination, etc. There may be swelling in the lateral aspect of the abdomen and well back in the loin. In acute pyonephrosis a similar swelling may occur, but it is usually more tender, more fixed, and the general signs of constitutional disturbance are much greater. There is usually pus in the urine. This condition is easily diagnosed as a rule, by means of pyelography.

Movable kidney is a condition which is occasionally seen, and which may give rise to doubts in the diagnosis. A kinking of the reno-ureteric junction may occur and cause severe pain in the loin ("Dietl's crises"), and a diminution of the amount of urinary secretion, without much swelling of the kidney. The urinary symptoms, lack of fever, and relief of the pain when urine passes more freely, may serve to distinguish it from other conditions. Other symptoms are largely gastro-intestinal, and often described as "indigestion": anorexia, belching and distention, constipation or diarrhea, and nausea and vomiting. So, one must be careful not to call this condition a gastro-intestinal one.

Neoplasms of the urogenital tract may also be mistaken for other conditions; also, tuberculosis of the kidney. These conditions can only be definitely diagnosed by means of cystoscopy with ureteral catheterization and pyelography. The most common symptoms of these conditions are hematuria and pain.

Finally, one must be on the lookout for polycystic disease of the kidneys. This condition may give rise to uremia, with vomiting and abdominal distention. This might be mistaken for intestinal obstruction, but the presence of tumors in both loins and the occurrence of albuminuria and high blood pressure would make one suspicious. The pyelographic study of both kidneys would clinch the diagnosis.

CONCLUSION.

I would again impress upon you the importance of keeping the various urinary lesions in mind whenever dealing with a

vague or obscure condition in the abdominal or pelvic cavities. Urinary lesions may give rise to such a varied clinical manifestation that almost any condition may be simulated. It is imperative that all of these doubtful cases be given the benefit of a complete urologic study before surgical means are employed, or before a possible serious lesion of the urinary tract becomes irreparable.

BIBLIOGRAPHY.

1. Sparks, A. J.: The urinary tract and intra-abdominal symptoms (case reports), *J. Indiana Med. Ass.* 21:376-78, 1928.
2. Baker, J. N.: Stricture of the ureter, *Am. J. Surg.* 3:6-12, 1927.
3. Ginsberg, H. M.: Symptoms of obstruction and their simulation of abdominal diseases requiring operation, *M. J. & Rec.* 128:211-213, 1928.
4. Campbell, M. F. and Lyttle, J. D.: Ureteral obstruction in infancy; study of 74 cases, *Tr. Sect. Dis. child.* A. M. A. pp. 135-149, 1928; also, *J. A. M. A.* 92:544-550, 1929.
5. Brown, D. A.: Renal and ureteral calculi in childhood with case report, *J. Urol.* 18:285-291, 1927.
6. Cope, Zachary: The early diagnosis of the acute abdomen, Humphrey Milford Oxford University Press, London, 5th Edition, 1928.

MALARIA:

CAUSE, MISDIAGNOSIS, TREATMENT AND PREVENTION.*

G. H. WOOD, M. D.,
BATESVILLE, MISS.

Any disease which occupies first place in a community or state in point of numbers, with a large death rate, should be frequently discussed.

It is not my desire to take up your time by an exhaustive review of the literature, for I am sure the work done by Laveran, Ross, Machiafavi, Bignami, Bass and others is familiar to each of you. It is, however, necessary to quote from these men to have a clear idea of the infection and a correct method of treatment.

While there are several points of the life cycle of the parasites not thoroughly worked

out, the gross fact remains that malaria is caused by the malarial plasmodium. To make it as simple as possible, we must first realize this is a haemameba; that in cases of malaria it appears in three forms: tertian, quartan, estivo-autumnal; that it has two forms of development: the asexual and the sexual.

The development is almost the same in all three forms. In the human hosts, the asexual forms develop that which is simply a reproduction of like and can not be transmitted to other individuals, unless a quantity of blood is injected from one person to another. And for the propagation of more parasites for other individuals, we must have the sexual forms developed in the anopheline mosquitoes.

We frequently have two or three groups of parasites in the same individual, giving rise to what is known as double tertian or quartan fever.

It is usually accepted that the fever is caused by a liberation of toxin at the time of sporulation. The time of sporulation or segmentation for tertian type is 48 hours; for quartan 72 hours; for estivo-autumnal 24 to 48 hours.

It is well to keep in mind the various stages of development and not be confused by the different terms used. When the parasite first attack the red cell or erythrocyte, it is called sporozoite or merozoite. As soon as it enters the erythrocyte it is called a hyaline body. By some, up to the time of segmentation, it is called schizont; after segmentation it becomes sporozoite or merozoite and gamete or gametocyte. The gametes are microgametes (male) and macrogametes (female). The sporozoites are then ready to attack other cells and perpetuate life cycle.

For the sexual form the mosquito takes up the gametes and after the macrogamete become fertilized in the mosquito's stomach it is called zygote, which develops into a cyst and is now called oöcyst. Finally, small

*Read before the North Mississippi Six County Medical Society, Water Valley, July 16, 1930.

spindle shaped bodies develop. These are known as sporozoite. This development requires 15 to 25 days, after which time, if the mosquito bites an individual, he becomes infected by the sporozoite and the process of asexual development begins.

The important point not cleared up is why some cases of severe infection should develop what is known as haemoglobinuria.

Fortunately, by looking after the cases early, this condition is less frequent than it was some years ago. I have not seen a case in several years.

So far as cause, treatment and prevention, I am sure hardly any major disease is better understood than malaria. Still, for the diagnostician, who does not rely on blood tests, many errors will be made. This is easily accounted for when you realize that no disease is a barrier to malarial infection.

More errors are made by calling other diseases malaria than by calling malaria other diseases. I do not believe that any diagnosis of malaria should be accepted unless the blood examination is positive. Repeated tests should be made if the report is negative. Too many are satisfied with one test or none. Every death certificate, which has malaria as the cause of death, should state whether or not blood tests were positive.

One reason for many death certificates having malaria given the cause of death, it prevents further correspondence from the Bureau of Vital Statistics, as they want every death certificate to correspond with the International List of causes of death.

While every disease, which gives a rigor, accompanied by fever of an intermittent or remittent type has been called malaria, there is now in the state what is called undulant fever, which is more likely to be treated for malaria than any other disease. Blood tests and time together will be necessary to clear the diagnosis.

In regard to diagnosis of latent malaria or malaria complicated with other diseases, Dr. C. Dozzi, Policlinico, Roma, states that if he used one milligram of adrenalin hypodermically after omitting quinine for five days, the parasites began to show in the peripheral blood in 20 minutes, were at their best in one hour and had disappeared in 24 hours. He used this method in 20 cases and all cases proved positive. As some medicines, such as quinine, drive the parasites from the periphery, I see no reason why some other drug might not be successful in driving them to the periphery.

More attention should be given the time of taking blood smears. Dr. Graham E. Henson, Jacksonville, Fla., states: "In the benign tertian sporulation occurs principally in the deep circulation and the majority of schizonts seek the deepest tissues a few hours before this cycle is reached, the young merozoites following sporulation do not at once inhabit the peripheral circulation, so that the best time to take blood smears for the detection of the benign tertian parasite is from 4 to 6 hours after the chill, and for the succeeding hours to within 6 hours of anticipated sporulation."

In the quartan infection sporulation occurs more often in the peripheral circulation than in any other forms of the disease, and on this account the parasite is more easy of detection in the peripheral circulation throughout the entire cycle, so that the time of taking a smear is not so important.

For the estivo-autumnal, two hours after the chill or exacerbation and for the succeeding two or three hours, are best. After the infection has persisted long enough to allow the forming of crescents, a smear may be taken at any time."

It is still claimed by some practitioners that quinine properly given will cure every case of malaria. That gives a nice loop

hole to question the giving of the drug. There are numbers of good clinicians who realize that quinine, like every thing else, has its limitations; in other words, some cases will not be cured by quinine alone. The standard treatment, as it is called, has done a great deal of good, possibly as much by calling the people's attention to the necessity of taking quinine as a prevention of malaria and not to rely so much on so-called patent medicines, chill and malarial cures. The treatment must be varied to suit the individual case. Many ears have been injured by giving quinine in too heavy doses and continuing too long.

Some have followed the plan outlined by Dr. A. J. Ochner some years ago, which is the standard, only using smaller doses. I frequently supplement the quinine by injection of cacodylate of soda twice a week. Frequently there are cases where a bitter tonic, like Warburg's tincture, given two or three times a day and given five or six days as if expecting to keep the chill off next day, is of value.

My experience with plasmochin has been quite limited.

I saw Dr. Krauss' demonstration of its use before it was put on the market and he was quite enthusiastic about its effect on special cases.

At the symposium on malaria in Miami, Fla., November, 1929, Dr. W. E. Deeks, in quoting observations by Dr. H. C. Clark, Dr. M. A. Baker, Dr. W. Cordes, Dr. E. R. Whitmore, Dr. H. W. Komp, leave little room for doubt that quinine has no effect on the development of mature stages of the gametocytes nor does it interfere with the ineffectiveness to the mosquitoes. This applies particularly to the estivo-autumnal parasite.

The effect of plasmochin on the crescents, however, is a different story, as it does what quinine and its salts failed to do. It devitalizes the gametocytes, so that patients who have received a sufficient dosage of this drug are not infective to mosquitoes.

This property which plasmochin possesses makes the discovery of the drug one of the greatest advances in recent years in malarial control.

All of which seems to emphasize the necessity for more blood study in order to prescribe quinine and plasmochin as necessary without adhering blindly to one treatment, if it is called standard.

Preventing malaria is summed up in a few words: "Keep the mosquitoes from biting you." All other causes may be disregarded, as evidently no case was ever produced by what we eat or drink.

If there is infection in the blood, whatever can lower vitality may help produce the paroxysm. Some one, I believe it was Dr. Bass, prophesied that Mississippi would be free from malaria in 1935 or 1940. I believe he will have to extend the time to something like 2000.

As the disease grows less the harder it will be to get people to observe the necessary precautions, especially where there is an item of expense.

In every county with a whole-time health unit, the problem is easier, because of repeated blood tests of all the people to find out those actually infected and the continuous campaign against mosquito breeding places.

If you must have mosquitoes about your premises be extra careful about your visitors, so that you will not get your mosquitoes infected.

AGRANULOCYTIC ANGINA

WITH CASE REPORT.*

S. F. STRAIN, M. D.,

AND

B. B. O'MARA, M. D.,

SANATORIUM, MISS.

Agranulocytic angina is a rather rare disease or syndrome characterized by a sudden onset of high, prostrating fever, and other symptoms of an acute systemic infection, usually associated with a severe, necrotic ulceration of the tonsils and pharynx, often including the mucous membranes of the gastro-intestinal tract, the lips, gums, tongue, the vagina, anus and the skin, with a marked reduction or complete absence of granulocytes, terminating fatally in most instances.

To Schultz¹ is generally accorded the distinction of having first thoroughly described the condition and giving it the name agranulocytosis, but several case reports of what was undoubtedly this condition had previously appeared in the literature. Schwartz² described a case in 1904, and Turk³ another in 1907. The first appearance of the subject in American literature was a case report by Lovett⁴ in 1924. Altogether there have been over two hundred cases reported, principally in America, Germany and Austria, with a few from England, France, Scandinavia and Japan.

The condition seems to be either on the increase or else we have been making more accurate diagnosis recently. So far as we have been able to discover, our case is the first that has ever been reported in Mississippi.

The term agranulocytic angina as suggested by Friedmann⁵ has been criticized. Not all cases have angina, hence the name agranulocytosis, given the condition by Schultz. Schilling⁶ suggested the name

malignant neutropenia, since "the term agranulocytosis is incorrect: By agranulocytosis is meant an increase in atypical neutrophils ('agranulocytes') which is not intended."

ETIOLOGY.

The etiology is not known. There is a difference of opinion among the various authors as to whether the condition is a specific disease entity, a granuloleukopoietic disorder of the bone marrow, or whether it is the result of (a) a chemical poisoning, or (b) some chronic disease, diseases or infections. While it has been noted in both sexes and between the ages of 2 week to 66 years,⁶ it is a great deal more common in women (90 per cent of reported cases) between the ages of 40 and 60 years. It frequently has its onset while the patient's health is weakened by some chronic illness as hypertension, chronic gall bladder disease, tuberculosis, et cetera, or it may occur in individuals who at the time seem otherwise to be in good health. Cases have been reported following the extraction of teeth, sinus and throat operations, and fractures. Numerous organisms have been obtained from cases by direct smear from the lesions, or by blood culture, the more common being streptococcus hemolyticus, *S. viridans*, Vincent's organisms, bacillus pyocyaneus, *B. coli*, Staphylococcus aureus, and others. Potts⁷ concludes that agranulocytosis "is not an independent disease, but represents a variety of septic illnesses," and says that it should be considered a symptom-complex and "designated as 'sepsis agranulocytotica.'" Schultz⁸ suggests that the cause may be the toxic action of some virus which has a special affinity for the myeloid system. Rosenthal⁹ considers that agranulocytosis is a clinical entity, related in some instances to a constitutional hypoplasia of the leukopoietic system; in other cases it may be the result of transitory hypoplasia. Pepper⁹ noted four cases in allergic patients, points out that anaphylactic reactions include leukopenia and inquires whether this syndrome might not be an

*Read before the Central Medical Society, Jackson, Miss., September 16, 1930.

allergic manifestation. Other factors suggested in the etiology are that the condition is secondary to some endocrine influence, and that it is a malignant leukopenia of leukemic nature. We are inclined to believe from a rather extensive survey of the literature that there are several diseases or syndromes among the reported cases of so-called agranulocytosis. It is likely that more careful study will separate them into secondary and primary groups, the secondary being toxic in origin and the primary of leukemic nature.

SYMPTOMATOLOGY.

The onset is usually sudden while the patient is apparently well or is being treated for some chronic illness. It is usually ushered in with symptoms of a bad cold or a severe sore throat, or the angina may come later or not at all. High fever, prostration and symptoms of profound toxemia soon become manifest, at the onset, out of all proportion to the local lesion. The first complaint may be such (as in our case) that the throat may not be suspected, and indeed whether the throat infection is the result or the cause of the leukopenia is a debated question. In the majority of cases there soon appear ulcers and necroses of the tonsils and pharynx with or without involvement of the pillars, uvula, hard and soft palate, tongue and gums. These ulcerations are covered with a necrotic membrane which has an appearance suggesting diphtheria, and indeed a large number of reported cases had been given diphtheria antitoxin before the diagnosis was made. As the disease progresses the ulceronecrotic condition spreads, causing extreme dysphagia, and, when it involves the alimentary tract, marked gastrointestinal symptoms—nausea, vomiting, diarrhea and abdominal pain. Anal ulcers result in severe pain, as noted in our case. A rather distinguishing characteristic of the lesions is the lack of an inflammatory reaction around them. The regional lymph nodes are tender but there may be very little, if any, enlargement of the glands. Jaundice occurs

in about 50 per cent of cases. There is no tendency to hemorrhage. The liver and spleen may be normal in size or slightly enlarged. The toxic symptoms become rapidly worse and are followed by delirium and death. Among the recoveries which occasionally occur, recurrences are not infrequent. The prognosis is usually fatal, especially in those cases which have a very acute onset and course and with extensive lesions. The disease as a rule runs a rapid course, though some cases have lived weeks and months. The recoveries in reported cases average about 12 or 15 per cent. In a series of fifteen cases reported by Rosenthal⁸ he had 40 per cent recoveries.

LABORATORY DATA.

If the blood count is taken at the onset it may be normal. Very soon, however, there is noted a marked leukopenia. The total white counts in reported cases range from 5,000 to 100. The granulocytes are greatly diminished, and as the disease advances they completely disappear from the picture. There is also a decrease in the lymphocytes. The plasma cells and monocytes may be increased. Macrophages and even myeloblasts may be found. The platelet count may be normal and there is very little disturbance in the erythrocyte count and hemoglobin, although cases with some anemia have been reported. The bleeding and clotting time remain normal.

Blood culture has been positive in only 28 of the 75 cases in which blood cultures were made. For this reason and because of the various types of organisms recovered, agranulocytosis cannot be considered as an acute infectious disease. In favorable cases the blood picture rapidly becomes normal, the young polynuclears (stabkernig) make their appearance as the leukocyte count begins to rise.

DIAGNOSIS.

Diagnosis usually presents little difficulty. The marked leukopenia with absence of or greatly diminished granulocytes occurring in a patient with symptoms of a profoundly

toxic angina is usually diagnostic. The disease, however, must be differentiated from:

(1) *Pernicious anemia* by the extreme prostration and the absence of the typical Addison-Biermer blood picture.

(2) *Aleukemic leukemia* by the blood picture and the symptoms, and by the absence of the increasing enlargement of the lymph glands. This diagnosis is not always easy, however, and in some instances the pathologic examination of the bone marrow must be resorted to.

(3) *Aplastic anemia* by the absence of interference with the formation of red blood cells, thrombocytes, and lack of tendency to hemorrhage.

(4) *Noma* by the ulceration of the oral mucous membranes in this condition without the characteristic blood picture.

(5) *Monocytosis* by an increase instead of a decrease in the total white count, and by the mild course of this disease.

(6) *Sepsis* by the history, physical findings and the blood picture.

(7) *Diphtheria* by absence of the Klebs-Loeffler Bacillus.

It must be remembered, too, that secondary agranulocytosis and ulcerative conditions may be terminal complications of Hodgkin's disease, or the result of roentgen-ray or radium therapy, neosalvarsan or benzol poisoning.

PATHOLOGY.

Post mortem examination usually reveals extensive ulceration of the mucous membranes (tongue, tonsils, throat, larynx, pharynx, vagina, rectum and whole intestinal tract). Microscopic examination reveals an absence of the inflammatory zone commonly seen around ulcers. The liver,

spleen and lymph glands may be slightly enlarged or normal microscopic examination of them showing nothing remarkable. The bone marrow is liquid and varies in color from straw to an intense red. There is almost complete absence of granular cells and there is a granulocytic aplasia. It contains many plasma cells and lymphocytes.⁶ Bone marrow removed from the sternum during the height of the disease¹⁰ may reveal a similar picture. There is an increase in the reticulo-endothelial cells of the bone marrow, spleen and circulating blood.⁹

TREATMENT.

Treatment for the most part is symptomatic. Many forms of therapy have been tried but in the favorable cases recovery can not always be ascribed to the therapy, as spontaneous recovery is probable in most cases.

Radiation of the long bones with stimulating doses of roentgen-rays seems to be of some value. Blood transfusion may be worth trying, but there is little evidence of much benefit from it. Fisher¹¹ reports a case with recovery treated with immunotransfusion. Neo-salvarsan, iron, arsenic, liver, bone marrow, various nuclein extracts, streptococcus serum, diphtheria antitoxin, mercurochrome, typhoid vaccine intravenously, have all been tried with little or no success. Local applications to the lesions of silver nitrate, arsenic or other solutions seem of little value.

The report of our case follows:

CASE REPORT.

Miss A. H., white, aged 56 years, was admitted to the Sanatorium June 17, 1930. Her father died at the age of 81 years of unknown cause, her mother was still living, aged 76 years, but was suffering from "bronchial trouble" and glaucoma. She had one brother, and three sisters living and well, one having recovered from pulmonary tuber-

culosis four years ago. She had been married twice, her first husband having died, cause not known, and the second divorced. She had never been pregnant. She gave the history of having had whooping cough and measles during childhood, typhoid at ten, influenza in 1915 and 1922, and malarial hematuria at twenty. She had had a cholecystotomy in 1911, a double oophorectomy at 24 years, tonsillectomy in 1922. Her teeth had all been extracted in 1921. At the age of 24 years she had suppurating supraclavicular glands which discharged about one year.

In November, 1929, she had an attack of acute pleurisy on the left side with severe pain and some fever for two weeks. Since then she had had soreness in her left chest, some cough and expectoration, with occasional elevation of temperature to 99.4 degrees F. She had never expectorated blood. She had some dyspnea on exertion, tired very easily, was very nervous and slept poorly. Her appetite was poor and she was greatly annoyed by fullness after meals, regurgitation of food, and constipation. She had not menstruated since her operation at twenty-four, had no pelvic symptoms.

On examination she was found to be of small frame, and slender, being 60½ in. (151 c.m.) in height, and weighing 91¾ pounds (41.7 kg.). Her blood pressure was 138/90. She wore well-fitting plates over edentulous gums. Considerable faucial tonsillar tissue remained, especially on the left. An old scar was noted on right side of neck over posterior cervical lymph chain. Cervical lymph glands were palpable, not tender. The chest was somewhat of emphysematous type, with rather marked thoracic kyphosis. There was increased tactile fremitus over both apices, and dullness on both sides to the second ribs and third dorsal vertebra. Rales were detected after cough above the third rib on both sides. Whispered voice sounds were increased over same area. There were scars on the abdomen from the cholecystotomy and oophorectomy wounds. The spleen was not palpable. Stereo-roentgenograms revealed old chronic fibroid lesions both uppers with no cavitation. Urine was practically normal, Wassermann negative, feces negative, and blood smear was negative for malaria. Sputum was not exam-

ined because she was unable to raise enough for a satisfactory specimen. On June 18, her blood count was as follows: erythrocytes 4,690,000, hemoglobin 85 percent; leukocytes 5,000, neutrophils 51 per cent, eosinophiles 7 per cent, lymphocytes 42 per cent. A diagnosis of chronic tuberculosis of the lungs, moderately advanced, was made.

She was admitted to the convalescent ward where she ran temperature ranging within normal limits, only occasionally going to 99° or a fraction above. Her pulse rate averaged 80. She was given bath room privileges and was allowed up and about the ward a little. She was thought to be doing well except for some nervousness until July 26, five weeks after admission, when she began to complain of rather severe pain in the rectum, and her temperature rose to 102.4 degrees. Nothing was noted on examination to account for the pain, but a beginning ischiorectal abscess was suspected. Codein, and application of local heat were employed with some relief. On the next day, the pain was much worse, and her temperature had risen to 104 degrees. Again rectal examination revealed no definite cause for her pain, there being no swelling. The anus appeared normal, but there was extreme tenderness in the perineum and digital examination elicited such great pain that it was evident proctoscopic examination could not be made without anesthesia. Opiates and local heat again gave relief. On the following day, July 28, the temperature reached 104.6 degrees F. The patient was extremely restless, and semi-delirious. The rectal discomfort had subsided somewhat, but she complained of sore throat and some difficulty in swallowing. Examination of the throat revealed a red-denied pharynx, with a whitish membrane on the left tonsil and tenacious drying mucus on the posterior pharyngeal wall hanging down from the naso-pharynx. A smear from this revealed numerous gram positive cocci of a great variety but no Klebs-Loeffler nor Vincent's organisms. A blood count made at the same time revealed only 650 leucocytes per cubic millimeter. Of these 96 per cent were lymphocytes and 4 per cent mononuclear leukocytes. No polymorphonuclear leukocytes were found after prolonged, careful search. A diagnosis of agranulocytosis was made,

and the family was informed of the gravity of her condition.

On July 29 the temperature remained high, the patient was semi-delirious and was unable to take the proper amount of liquid. There was extreme tenderness on both sides along the neck but the glands were not noticeably enlarged. Examination of her throat revealed numerous small petechiae on the soft palate. A definite ulcer had appeared on the left tonsil, about 5 c.m. in diameter, sharply outlined and not surrounded by an inflammatory zone. The base was covered with a grayish white exudate which could not be wiped off with a swab. Several small ulcers of similar character were noted on the oropharynx. The blood count on this day was 250 leukocytes, 98 per cent lymphocytes and 2 per cent large mononuclears. Again no granulocytes could be found. The red blood cells numbered 4,340,000, hemoglobin 55 per cent. Liver and spleen were not enlarged.

With a hope that production of leukocytes might be stimulated, a first degree erythema dose of ultra-violet rays was given. The next day, July 30, the leukocyte count was 400 with 85 per cent small lymphocytes, 11 per cent large lymphocytes and 4 per cent large mononuclears. Her general condition was growing rapidly worse. July 31 the blood count was 400, 100 per cent lymphocytes. She was irrational, fever remained high, and she was much weaker. Attempt to swallow resulted in strangling and regurgitation through the nose. There was a blood streaked, dirty grayish, false membrane covering the whole pharynx and the left tonsil. The pulse became weak and thready. Coarse rales were heard throughout the chest, the temperature remained high (104°), until death occurred at 12:30 that night. At no time was there any jaundice or other skin manifestation. Autopsy was not obtained, but immediately after death careful examination revealed several small ulcers just inside the anus near the mucocutaneous border. The vagina and the rectum above this were normal.

Treatment was symptomatic. Local application of silver nitrate solution to the throat lesions, and hot fomentations were used. Roentgen-ray therapy was not available.

SUMMARY.

- (1) The cause of agranulocytosis is not known. Theories advanced are that it is:
 - (a) A specific disease entity.
 - (b) A result of some chemical poisoning or of some chronic disease or diseases.
 - (c) Secondary to some endocrine influence.
 - (d) A malignant leukopenia of leukemic nature.
- (2) The cardinal symptoms of the disease are: (a) Symptoms of profound sepsis with sudden onset; (b) necrotic ulcerations of the mucous membranes; (c) marked leukopenia with great reduction or complete absence of granulocytes.
- (3) Careful blood studies make the diagnosis.
- (4) The course is rapid and usually fatal.
- (5) Pathologic study reveals granulocytic hypoplasia of the bone marrow and the absence of inflammatory zone around the local lesions.
- (6) Treatment is very unsatisfactory, roentgen radiation of the long bones seems to be of some value.
- (7) A typical case occurring in a woman suffering from fibroid tuberculosis is reported.

BIBLIOGRAPHY.

1. Schultz: *Deutsche Med. Wochenschrift*, 48:1496, 1922.
2. Blumer: *Amer. Jour. Med. Sci.*, 179:11, 1930.
3. *Ibid.*
4. Lovett: *J. A. M. A.*, 83:1498, 1924.
5. Friedmann: *Med. Klinik*, 19:357, 1923.
6. Gordon: *Ann. Int. Med.*, 3:1008, 1930.
7. Potts: *Arch. Otolaryngology*, 9:257, 1929.
8. Rosenthal: *The Laryngoscope*, 40:592, 1930.
9. *Arch. Otolaryngology*, 11:810.
10. Back: *J. A. M. A.*, 93:1468, 1929.
11. Fischer: *Jour. Mich. Med. Soc.*, 29:435, 1930.

CASE REPORTS AND CLINICAL SUGGESTIONS

A CLINICAL MEETING.

The following series of case reports, with a presentation of the patient in certain instances or the pathologic material, were given by the consultant and regular staff of the U. S. Marine Hospital at New Orleans at the regular meeting of the Orleans Parish Medical Society, held February 23, 1931, at the Marine Hospital.

ADVANCED BANTI'S DISEASE— SPLENECTOMY; CURE. — Presented by W. R. Metz, M. D.

Miss A. B., aged 26 years, was admitted to this hospital on September 20, 1926, four and a half years ago. She was principally concerned about her eyes being "blood shot" and applied at the Eye, Ear, Nose and Throat Clinic for treatment. Sub-conjunctival hemorrhages were noted and patient was referred to the Department of Internal Medicine for a complete work-up.

The condition of the eyes had been worrying her for only a few days, but she stated that for a rather indefinite period weakness and a poor appetite had been present. There were no other complaints. The family history and past history were inconsequential except for typhoid fever and malaria ten years previous to admission and a few years later a tonsillectomy.

Physical examination showed a well developed patient with an obvious anemia. Height was 62 inches and weight 118 pounds.

Eyes showed small sub-conjunctival hemorrhages. The heart was not enlarged, the rate was 72 and rhythm was regular, but a systolic murmur was present at the apex and base. The blood pressure was 120/55. The abdomen was slightly distended and gave the physical findings of free fluid. The liver was moderately enlarged. The spleen was rather markedly enlarged. The skin was slightly icteroid.

The laboratory reported a negative Wassermann, negative sputum and negative stool. The urine contained no trace of albumen. Gastric analysis was negative, except for a free HCl of 10 and total acidity of 32. Red blood cell count was 2,500,000. Hemoglobin 38 per cent. White blood cell count was 4,800 with a normal differential count.

On the basis of a secondary anemia, leukopenia, enlarged spleen and liver and ascites, a diagnosis of Banti's Disease was made.

The patient was started on the usual regime for anemia. On October 1, 10 days after admission, the patient fainted. A few hours later she vomited a large amount of fresh blood. The pulse became so weak that a blood transfusion was decided imperative. A half-hour after transfusion, another copious gastric hemorrhage occurred and in another hour two more severe hemorrhages took place. The pulse was thready and could not be counted. The patient was supported with morphine and proctolysis. The following day the fifth gastric hemorrhage in 24 hours occurred. The red blood cell count at this time was 1,290,000.

During the following ten days four transfusions were done and one abdominal paracentesis. 2,400 cc. of clear straw-colored fluid was removed from the abdomen.

With a red blood cell count of 1,840,000, the fifth transfusion was done and patient operated. Splenectomy was done and patient was again transfused.

Two days following operation the red blood cell count was 2,325,000; one month later 2,730,000; two months later 3,310,000; three months later 4,000,000; four months later 4,430,000.

The post-operative convalescence was moderately stormy for the first few weeks. Abdominal paracentesis was necessary only after the operation and there has been no recurrence of abdominal fluid. At the end of three weeks she was up in a wheel-chair and at the end of the seventh post-operative week she was discharged. She returned at bi-weekly intervals for laboratory check-up during the following three months. At that time her blood picture was considered normal.

Today, four and a half years after splenectomy for an advanced Banti's Disease, she is symptom free and the blood picture is normal. She has been very kind to us in presenting herself for a follow-up and permitting us to present her case record at this meeting.

TRAUMATIC ANEURYSM OF THE LEFT BRACHIAL ARTERY.—Presented by W. F. Ossenfort, M. D.

Traumatic aneurysm of a healthy artery usually follows a penetrating wound. The case to be presented did not have a penetrating wound. All symptoms and signs followed almost immediately a trauma to the left arm. No reason has been found for not considering the artery healthy at the time of injury.

T. W., aged 29 years, was about his usual work on January 23, 1931, when he slipped and fell backward, striking his left arm against a wall. He thought it only a minor injury, rubbed his arm a bit and went on working. After about ten minutes his left arm became numb, cold and weak. He stopped working. That night the pain in the arm was severe and he noticed for the first time a throbbing mass in the back of his arm near the arm-pit. Relief from pain was obtained by alternating lowering and raising the forearm. Two days later he entered the hospital.

Examination on entrance showed the left arm and hand fairly cyanotic. The left hand was notably colder than the right. There was a pulsating mass at the posterior lateral axillary fold about the size of a lime. It could not be accurately outlined.

A definite bruit could be heard over the mass. Pulsation was absent below the mass. The patient complained of pain when the arm was elevated above the head. There was a moderate impairment of touch sensation, over the area supplied by the ulnar nerve. There was no motor disturbance. The remainder of the physical examination was negative. Laboratory was negative. Roentgen-ray shows an old fracture at elbow with two small loose fragments.

The family history and past history added nothing. Four days after the injury there was still cyanosis of the nails of the left hand. On the following day the nails were no longer cyanotic, but definitely pink. The patient had much less pain, slept well and stated that his arm felt much stronger.

Eight days after injury, temperature readings were taken of both hands, using the method of inserting a thermometer bulb through a hole in a rubber glove worn by the subject. The temperature of the left hand was almost exactly room temperature. It was 8.4° centigrade colder than the right hand. Simple calorimetric determination showed less heat output by the left hand but this was not a satisfactory criterion since keeping the forearm in the calorimeter was too uncomfortable after only twenty minutes.

On the ninth day, temperature difference was 5.5° C., and on the tenth day 4.1° C. The progress in temperature equalization was parallel with subjective progress. The arm was much stronger and gave practically no discomfort.

From the twelfth to seventeenth day there was more pain and discomfort. On the seventeenth day the temperature difference was 10.4° C., greater than it had been ten days previously. His sleep was interrupted with pain in the arm.

Relief was obtained by lowering the hand over the side of the bed.

At the end of three weeks, when condition was practically stationary, the patient was started on seances of applying digital pressure over the axillary artery above the aneurysm with a view to further increasing collateral circulation. After doing this for four days the axilla became tender and the hand more painful. The pressure seances were consequently discontinued. Examination at this time showed the mass about the same size but definitely less pulsatile. The bruit was more marked. Temperature was 32.1 or about 4 degrees subnormal. This was four weeks after the injury but there was no perceptible pulsation below the mass.

This patient presents then a definite aneurysm, probably a false aneurysm pathologically, of the first portion of the brachial artery with occlusion of the brachial trunk. Collateral circulation has developed to an extent where tissue vitality is good and according to Dr. Matas this is the principal criterion of collateral circulation.

Various devices have been reported for empirical testing of collateral circulation. Dr. Brooks and later Dr. Singleton injected sodium iodide into the arterial lumen and took skiagraphs. Brooks later developed a method of taking temperature of subcutaneous tissue of an extremity by the use of a thermocouple. This necessitated puncturing the skin for each temperature reading.

We have not resorted to sodium iodide injection because we feel that circulation is none too good at present and we know that sodium iodide has caused serious damage when so used.

Treatment of the case has been expectant. Theoretically, at the end of four to six weeks, collateral circulation should be at its best, and at that time surgery will be attempted. The surgery most often used in these cases is the Matas operation of endoaneurysmorrhaphy though in some cases proximal ligation is the operation of choice. Prognosis is excellent as a rule.

The patient was examined again today. The mass no longer pulsates. It is quite firm. There are no complaints.

BLASTOMYCOSIS OF KIDNEYS.—Presented by Noka B. Hon, M. D.

C. H., white male, merchant seaman, age 27 years, a native of Louisiana, entered the Marine Hospital for the second time on December 21, 1930, complaining of fever, a dull pain in the back and pus in the urine. These complaints were substantially the same as those made when

he first entered the hospital five years ago, except that all symptoms are more severe.

Present illness began about three months prior to his first admission into the hospital, as a constant dull aching pain in the lumbar region of the back. He noticed that his urine contained a thick white sediment most of the time. He had never had any urinary disturbances, void 3 to 4 times daily, no nocturia. He noticed blood in the urine for the first time about two years ago. This hematuria was not severe, lasted for eight days and has never been present since. Attacks of fever have become more frequent in the last year and are present almost every afternoon. At times the temperature has reached 104° F., and remained so for two or three days at a time.

Since his discharge from this hospital five years ago, he has been under constant medical care and has been in three other hospitals. In spite of this treatment, he says he is having more pain and fever than he has ever had before. He now complains of pain in his left chest but there is no cough nor hemoptysis. He has lost eight pounds in the last three months. Recently he has become very nervous and irritable and at times rather depressed about his condition.

Physical examination reveals well developed and nourished white male of 27 years, 5 feet 9 inches tall, weighing 141 pounds. Abdomen: He complains of pain and tenderness to slight pressure along each costal margin and entire left portion of upper abdomen. There is considerable muscle tenseness over upper abdomen, especially over the left hypochondriac region. The kidneys nor spleen could not be felt because of tenderness and muscle guard. Back: Patient also complained of pain and soreness over each kidney region from slight pressure, more marked on the left. The physical examination otherwise was negative.

Laboratory Findings: Daily urine examinations have been constantly negative with the exception of three plus pus in all specimens and some microscopic red blood cells following cystoscopy. Blood examination: W. B. C. 9600. Neutrophils, 72 per cent; small mono. 22 per cent, large mono. 6 per cent; malaria negative. Sputum: Negative for acid fast organism or fungus. Wassermann and Kahn, negative. P. S. P., 1st hour 42 per cent, 2nd hour, 8 per cent; appearance 2½ minutes. N. P. N. 30 mg. per one hundred c. c. of blood.

Roentgen-ray Reports: Chest, no suggestion of blastomycosis. Probable bronchiectasis of the lower portions of both lungs. Adhesions to the diaphragm, flat plate of G. U. tract negative. Pyleograms, negative.

Cystoscopic Examination: Urethra and prostate are normal. Bladder, no residual, capacity 400 c. c. mucosa presented a diffuse dark red color over the trigone and at vesical orifice. The left ureteral orifice was swollen and projected into the bladder for about 0.5 cm. Ureteral catheters passed easily on each side without apparent trauma. Normal waves of cloudy urine returned from each side.

The kidney urine has been cultured several times. In 1925 during his first hospitalization, six positive cultures were obtained and reported as fungus (blastomyces type). During this admission cultures of all specimens from the kidneys have been negative. Cultures from the bladder were reported fungus blastomyces type. Smears from kidney urine were reported 3 plus and "Few blasting fungus in each specimen."

Treatment has consisted principally of intravenous infusions of 10 c. c. of 10 per cent sodium iodide four to six times weekly. Potassium iodide in mouth 15 gr. T. I. D. He has had 38 cystoscopic treatments in the last five years, consisting of lavage of kidney pelvis and ureter with 1 per cent silver nitrate alternating with 1 per cent mercurochrome. He has also received 10 grams of urotropin and 30 grams of sodium acid phosphate three times a day. The surgical consultant examined the patient and advised aspiration to see if there was a renal or peri-renal abscess present but no pus nor fluid could be obtained.

Progress: The patient has shown some improvement. He has very little pain at present and the tenderness and soreness of his back has greatly decreased. His temperature has been normal for the past three weeks. He has gained about 10 pounds since admission. His urine continues to have three plus pus but no recent attempts have been made to culture it.

LEONTIASIS OSSEA.—Presented by T. B. McKneely, M. D.

Briefly, leontiasis ossea may be defined as a "localized or diffuse hyperostosis of any or all the bones of the cranium and face." The most common age of onset is between ten and fifteen years, although it may be congenital. The condition begins most frequently in the bone where it may remain isolated or spread to others. Symptoms from nerve pressure and space encroaching processes may or may not be present. This patient presents so definite a hyperostosis of the bones of the cranium and face that I feel this may be considered

an example of this clinical condition. The patient's age, the age of onset, the relatively normal condition of the other bones of the body, together with the skull and facial changes certainly label this leontaisis ossea. Therefore, I present the following case:

L. R., a negro male, aged 18 years, employed on a ferry boat, entered this hospital on October 24, 1930, with a chief complaint of a penile ulcer. This complaint is of no particular interest to us now. The striking feature of this boy was the enormous enlargement of the bones of his head and face.

Present illness: The history, as obtained from the patient was rather vague. The onset must have been in early childhood. As far back as he can recall, his head has always been larger than the heads of others, but when he started to grow, apparently about the age of puberty, his head out-grew the rest of his body. This growth was never associated with pain of any sort. He has not noticed any enlargement in the past two or three years.

A review of the systems revealed little other than negative findings. A detailed neurological survey has not been done. However, the patient gave no history of headaches, vertigo, vomiting, deafness, or attacks of blindness. He was mentally alert and his intelligence equalled the average for a negro boy of his age. His outlook on life was characteristic of his race. The penile lesion had been present two weeks, when he entered the hospital. The presence of this ulceration bore mute testimony to his libido.

Past history: The patient had a healthy childhood and did not recall any serious illnesses. He been knock-kneed since early life. At the age of 12 years, he fell down a hill, injuring his left knee. It was immobilized for a short time, and as soon as the dressing was removed, the patient began to walk about. This increased the deformity to a very marked genu valgum.

Family history: The parents were both normal in development; the father quite a robust man. The patient was the sixth child of seven. All the brothers and sisters are in good health. None of them present any such cranial development as found in this boy.

Physical examination: The general appearance is that of a young negro male, not acutely ill, possessing a noticeably large head, and a marked deformity of the lower extremities. His gait is altered but he manages to walk with little difficulty. He is 60¼ inches tall and weighs 115 pounds. His blood pressure is 120/78; pulse 88 per minute.

The skull is the main point of interest. The anterior-posterior diameter appears lengthened in comparison to the lateral. The occipital region is markedly protuberant, apparently from an overgrowth of the occipital bone. The frontal region is not especially prominent. Palpation reveals that there is a depression along the line of the frontal, sagittal, and lambdoid sutures, quite marked in the region of the anterior and posterior fontanelles. All the facial bones have participated in this general, symmetrical hyperostosis. The superior maxillae are heavy and the alveolar processes are thickened and lengthened, so that the teeth are spaced farther apart, giving an impression of peg-teeth. The mandible is also hypertrophied. Due to its overgrowth, there is a decrease in the space between the chin and chest. The face as a whole appears not unlike that of one of the higher anthropoids. The fronto-occipital diameter of the skull is 67 cm.; the sub-occipito-bregmatic, 63 cm.

The eyes show no evidence of proptosis. The pupils are equal, regular, reacting to light and accommodation in a normal manner. The eye-grounds are normal and vision is not impaired. The ears are quite small, with an adherent lobule and an almost complete absence of the helix. His hearing is normal.

The neck is rather short, especially in front; there are no masses to be felt in the thyroid and parathyroid region.

The thoracic cage is rather small and of the barrel type. It is symmetrically developed. The clavicles are very heavy, especially the medial extremities, and appear shorter than normal, as if some of the length were taken up in an increased curvature. The ribs present definite evidence of beading.

The genitalia are normally developed, except for some slight scarcity of pubic hair. There is a slight scar on the inner surface of the dorsal prepuce.

The extremities show some departure from normal. The humerus is shorter than it should be. The hands are thin and the fingers are long and tapering, typical "artistic hands." There is a moderate genu valgum of the right leg with a marked inward and slightly forward displacement of the left knee. The tibiae show no evidence of forward bowing. The tissue over the bones is smooth with no suggestion of any osteo-periostitis.

Laboratory Data: Blood picture, normal. No evidence of sickle-cell formation.

Blood Chemistry:

Total N. P. N.	27.8	mg.	per	100	cc.
Calcium	8.5	"	"	"	"
Phosphorous	2.85	"	"	"	"
Sugar	84.0	"	"	"	"

Blood Wasserman, negative.

Spinal fluid, urine, feces, sputum negative.

Summary of Roentgenograms: Skull: The striking feature is the enormous thickening of the calvarium, which is uniformly increased throughout, measuring in the plate from 2.5 to 3 cms. There is no differentiation into an inner and an outer table. The density of the bone is so great that it is difficult to obtain clear pictures. Scattered over the frontal and parietal regions are small circular areas of decreased density, possibly due to cystic changes in the bone. The sella is apparently unchanged. The region of the sutures shows some separation. The frontal air cells are present but are proportionately increased in depth. There is hypertrophy of the bones of the face, including the upper and lower jaws.

Teeth: Essentially negative.

Long Bones: The humeri show marked disturbance in the upper ends with some tendency to cystic changes. There is an increased density of the shaft with a prominent deltoid tubercle. The tibiae show some tendency to bowing. This is slight, however. There is definite trophic disturbance of the outer end of the clavicles.

Joints: The centers of ossification about the joints as studied in the plates of the hand, wrist, elbow and ankle, are within normal limits. The left knee shows possible evidence of an old injury but the changes are probably the results of trophic disturbances.

Spine: The spine is essentially normal. There is no evidence of syphilitic changes in any of the bones.

REPORT OF A CASE OF KERATOSIS FOLLICULARIS OR DARIER'S DISEASE.—Presented by William S. Doshier, M. D.

In 1889 Darier in France and White in America independently described this disease. At the present time there has been a little more than one hundred of these cases reported in the various parts of the world.

Little is known of the etiology of this disease. In the majority of cases the

disease begins during childhood and it seems to have a predilection for males. There is some evidence to show that it may be heredity, though no such history was obtained in this case. No organism has been shown to produce the disease and it is not considered contagious.

As originally described by Bowen, the lesions are caused by hyperkeratosis, affecting chiefly the sebaceous and hair follicles. The process is chiefly confined to the neck of the follicle but in the later stages it extends into the interfollicular tissues. About the borders of the lesions there is an abundant pigment deposit in both the epidermis and corium. The only other change noted in the corium is a small amount of cellular infiltration. In the tumorous-like masses and vegetating lesions marked proliferation of the rete into the corium occurs, this process being secondary to keratosis. The disease therefore is primarily and essentially one of the epidermis.

There is no specific treatment for the disease. Various drugs such as sulphur, salicylic acid, ichthyol and resorcin have been used in the form of ointments and are used only as palliative remedies. Many observers are, however, of the opinion that radiotherapy is the remedy of choice.

The prognosis as to the recovery from the disease is unfavorable but as to a serious termination of the disease is usually good. One case, however, has been reported as terminating in epithelioma.

Sam Jones, colored male, aged 32 years, native of Louisiana, was admitted to this hospital on February 7, 1930, with chief complaint of sores on each buttock.

The past history is interesting in that he had the usual childhood diseases, malaria at 20 years of age, gonorrhea at 17 and 32 years, syphilis at 28 years, for which he has been treated.

The history of the present disease dates back to his childhood. When about 13 years old, he noticed the rough appearance of the skin over his chest and face. Thirteen years ago small granulomatous masses with ulcerations appeared on each

buttock. These ulcerations were not disabling enough to keep him from being drafted into the Army. While in the Army he was given five doses of salvarsan which seemed to exert a favorable influence upon the ulcerations but did not heal them.

For the past ten years the masses and ulcerations on each buttock have been slowly increasing in size. He states the lesions were painful and annoy him greatly when he sits down as well as when the moon changes.

In 1928 the ulcerating masses were cauterized with the actual cautery. Since that date he had no treatment except home remedies prior to coming to the hospital.

The physical examination upon entering the hospital was essentially negative except for the skin findings. Over the scalp, face, axilla, trunk, perineum and legs there were large, rough, warty-like areas of epidermis. There was evidence of hyperkeratinization in these involved areas. On the hard palate there was also a roughened area, bluish in color, which is also a part of this picture of Darier's disease. On each buttock there was a large granulomatous mass of mulberry topography which was tender and bled very easily. On the basis of these findings, the diagnosis of keratosis follicularis was made. The routine laboratory data is unimportant.

A resume of the treatment and progress of the case is as follows: He has been given Donovan's solution, minus II daily since his admission. A biopsy of a piece of tissue taken from the back of the leg was done and the pathologist reported "A slight area of degeneration on the surface, the underlying cells proliferating and showing early malignant changes." Following this report the masses on each buttock were cauterized with the actual cautery. This cauterization seemed inadequate and on April 4, 1930, he was given radium into the masses. The lesions seemed to improve and six weeks later radium was given again. Following this last radium treatment a large slough developed in the mass in the right buttock which slowly healed. On January 3, 1931, a slough developed in the left buttock which is healing slowly at the present time. He has also been given mercury, bismuth and mixed treatment. It is interesting to note that the general health of this patient has been good.

TWO CASES OF PULMONARY TUBERCULOSIS TREATED BY ARTIFICIAL PNEUMOTHORAX. — Presented by G. H. Faget, M. D.

Artificial pneumothorax is the greatest advance that has ever been made as the treatment of pulmonary tuberculosis. By it, many otherwise hopeless cases are saved or have their lives prolonged. Since its general adoption about 25 years ago, its popularity has steadily increased so that at present it is used in as high as 20 per cent of the patients in some sanatoria.

Each patient for this operation should be individually and carefully selected. There should be no hesitation in extensive unilateral cases. In those with bilateral involvement, the lesions in the better lung should be small in extent, not very active and preferably situated in the apex. As a means of checking uncontrollable hemoptysis, it will often prove a life-saver.

The technic can be found in any textbook on the subject. I would like to draw special attention, however, to a few important points which are often overlooked and which adds to the simplifying as well as the safety of the operation.

First, the simplest way of making the primary pleural puncture is with an ordinary 19 gauge hypodermic needle, the point of which has been filed to a short blunt bevel. The thorax is punctured with this needle while attached to a glass syringe partly filled with the anesthetic solution. As soon as the point enters the pleural space, the fluid level in the syringe will be noticed to slowly drop due to suction from the negative intrapleural pressure. This is the surest way of knowing just when the pleural space has been reached.

Second, never start the primary pneumothorax inflation until the manometer registers a good negative pressure with free respiratory oscillations. The usual pleural pressure will be found to vary between -4 and -10 mm. of water. A nega-

tive pressure of less than -3 during full inspiration is a contraindication to turning on the air.

Third, for an initial pneumothorax injection, the water in the two bottles of the pneumothorax apparatus should be on a level. Under these circumstances (*i. e.*, atmospheric pressure) the induction of the pneumothorax depends upon the negative pleural pressure drawing the air into the pleura from the proximal bottle. This precaution practically eliminates the danger of air embolism. With later refills, a positive pressure can be used by elevating the distal bottle without danger, since the two pleural layers have already been separated by a previous pneumothorax.

Fourth, small inflations (about 400 c. c.) at frequent intervals are better than larger ones at longer intervals. The advantages of the small refills are first, a more gradual change in the intrathoracic viscera to which the patient can more easily adjust himself, second, the stretching of adhesions rather than their tearing which is dangerous, and third, the smaller fluctuations in pleural pressure which are thought will lessen the tendency to pleural effusions.

Fifth, the use of the fluoroscope at frequent intervals is of great importance. The things to be noticed by fluoroscopy are: any shifting of the mediastinum; the kinds of adhesions, the degree of collapse of cavities, the formation of pleural effusion, and the condition of the opposite lung.

Case 1. H. K., merchant seaman, 27 years old, first came under my care upon admission to the Marine Hospital at Fort Stanton, New Mexico, on July 12, 1929.

Present history: Patient states that he first noticed that he was always feeling tired in January, 1929. At that time he had a productive cough, no appetite and was losing weight. There was a little fever and a few night sweats. The ship's doctor examined him and told him he had tuberculosis. On February 21, 1929, he entered the Marine Hospital at Baltimore where his sputum was positive and at which time he had lost 16 pounds in weight. Roentgen-ray showed

extensive infiltration left above 3rd rib with cavity. Right slight infiltration apex.

The sputum was consistently positive and there was afternoon rise of temperature and rapid pulse while patient was confined to bed. It was considered that his disease was very active and that artificial pneumothorax was indicated without delay. The patient consented to the operation and the first inflation was given 8 days after admission.

Aside from a small pleural effusion during the early months, there was no postoperative complications. For the first two months there was a febrile reaction. The sputum remained positive about four months. He was treated as a bed patient for the first six months. The cavity proved very resistant to collapse on account of adhesions and was only completely closed after nine months and after the pleural pressure had gradually been raised to 2 or 3 plus.

After 8 months of pneumothorax therapy, the patient was put on a course of supervised exercises with pulse and temperature checks. There were no untoward effects and shortly afterwards the patient started to work in a cleaning and pressing business. Without any ill effects he followed this occupation during the last nine months of his stay at Fort Stanton.

On February 16, 1931, he was admitted to this hospital for a short period of observation and to continue the pneumothorax inflations which he was receiving every two weeks. Examination showed complete collapse of left lung by pneumothorax and no signs of activity in right lung. The patient is in good health, feels as well as he ever did and is back to his normal weight with a negative sputum. He realizes that he has about 1½ to 2 years of pneumothorax ahead of him but knowing what his condition was before undertaking treatment, he is convinced that it is a lifesaver for him and will continue it willingly.

Case 2. R. V., merchant seaman, aged 24 years, was admitted to this hospital on September 23, 1930, complaining of "fever" of three weeks duration. Accompanying the fever there was cough and slight expectoration. He also complained of night sweats and pain in left lower chest. The physical findings in the chest were impaired resonance over upper part of left lung with broncho vesicular breathing and increased whispered voice and medium rales in same area. The roentgenologist reported extensive involvement of left lung with cavitation at apex. Laboratory report showed positive sputum (besides 3 plus Wassermann and hookworm ova).

Clinically, there was a febrile course, with variation between 36° C. and 39.8° C. during the first week. With bed rest this gradually declined to a maximum of 38° C. during two months of observation. His cough remained productive and his sputum positive. Under these conditions pneumothorax was decided upon November 20, 1930. Since then 20 inflations have been given.

There has been a marked improvement. Expectoration is at present very scanty and sputum negative. Temperature subsided to normal in six weeks and remained normal for three weeks. Following a small effusion there was an elevation with peaks of 0.2 to 0.8 daily for a few weeks but it is normal again since February 4th and there has been no spread to the good lung. The prognosis seems favorable.

THE TREATMENT OF ENTAMEBIC DYSENTERY BY DUODENAL INTRODUCTION OF IPECAC.—Presented by W. E. Anderson, M. D.

No attempt shall be made in this brief discussion to review the literature on the treatment of entamebic dysentery but we will consider rather briefly the pathology and clinical symptoms before outlining the treatment and the results obtained in handling six uncomplicated cases here recently.

Pathology: Any part of the large intestine may be involved and a very early lesion consists of small raised hemorrhagic areas which later lose their surface epithelium. The destructive lesions of the intestine consist of small erosions which may involve the mucosa alone, of ulcers with a crater-like appearance with undermined margins and finally of large irregular shaped ulcers whose bases are formed of muscular coat or even peritoneum. These large ulcers are often formed by the coalescing of smaller neighboring ulcers through sinus communications formed in the submucosa, the overlying muscularis and submucosa, there sloughing off. The most typical amebic ulcer is the flask shaped one due to spreading out of the amebas in the submucous coat, the edges being formed of the overlying basement and mucous membranes. The accumulations of amebas

in the submucosa tissues are attended by a low grade inflammatory reaction with edema, lymphocytic infiltration and fixed tissue proliferation. The amebas are particularly found in the edematous tissues beyond the areas of most acute inflammation in which intestinal bacteria also play a part. In some cases the tissues seem little able to resist infection and large gangrenous ulcers result, the walls of which are soft and the bases of which are formed of blackish or greenish sloughing tissue in which numerous cocci bacilli and sometimes amebas are found. It is the opinion of some writers that these changes are not produced entirely by the amebas but are probably chiefly due to the bacteria. Another process sometimes observed in the intestine in amebic dysentery is a diphtheretic one which is also probably caused by the bacteria present in the intestine. We will not discuss the pathology of the complications which include abscess of the liver, lungs, brain and peritonitis.

Symptoms: Cases of entamebic dysentery differ greatly in character and severity but for convenience of discussing the clinical course of the disease, the case may be grouped under (1) mild or latent forms; (2) those with acute onset; and (3) advanced or chronic forms. Cases with grave intestinal lesions may sometimes come to autopsy in which the individuals had during life no intestinal symptoms sufficiently prominent to attract attention. While individual cases may vary widely, there are nevertheless some features which are common in at least the majority. These are the irregular course marked by periods of intermission and exacerbation; abdominal symptoms; the appearance of mucus in the stools, and the tendency to chronicity. A phenomena peculiar to the malady is the occurrence of amebic liver abscess.

Treatment: Among the many remedies which have been used in the treatment of this serious disease, the following may be

mentioned: ipecac and its derivatives, the arsenicals, chapparo amargoso, quinine, oil of chenopodium, salicylic acid, anayodin and yatren.

The partial failure of all emetine methods satisfactorily to cure amebic dysentery is probably explained by the fact that the active harmful parasites are located at the base and undermined edges of ulcers which are plugged up with a thick, tenacious substance consisting of mucus, blood, degenerated mucosa and dead and dying amebae and their secretions. Ordinary enemas do not clean out these plugs but active saline catharsis does remove much of the debris. The ideal treatment would seem to consist, therefore, in thoroughly cleaning out the ulcer craters by means of saline catharsis and then the rapid diffusion of the destructive agents through the whole bowel so that every ulcer will be treated. Not long ago Anderson described the transduodenal method employed by him for the past seven years, which is as follows:

(1) The patient is put on a nutritious lacto-farniaceous diet, with frequent feedings. (2) In the morning after a twelve hour fast, a regulation duodenal tube is passed well into the patient's duodenum, its location being determined by the usual methods, preferably by roentgen-ray. The tube may have to be passed the night before where much pylorospasm exists. (3) The pylorus is encouraged to close by giving the patient 4 or 5 ounces of cold milk to drink alongside the tube. (4) A Jutte transduodenal lavage is performed—500 c. c. of a 10 per cent aqueous solution of sodium and magnesium sulphate is allowed to run slowly through the tube into the duodenum. This usually produces a copious, watery evacuation in from

20 to 30 minutes, and can be shown to clean out the ulcer bases very satisfactorily.

(5) Twenty minutes after administration of the hypertonic salt solution, there is poured down the tube a suspension of 1 dram of powdered ipecac in 100-200 c. c. warm water and this is followed by 50 c. c. more of water to wash out the tube. The tube is left in situ for a few minutes as in its removal a little ipecac might be carried into the stomach and occasion very persistent vomiting. (6) An hour or so following this treatment the patient resumes his feedings. (7) These treatments are repeated daily for seven days and are followed by an interval of seven days, and then another seven days course of treatment. This technic was carried out in our method of treatment except that we did not inject the ipecac daily, never oftener than every other day.

A. B., a foreign seaman, 32 years of age, entered the hospital with the chief complaint of general weakness and an intermittent diarrhea of 3 years' duration. When the patient entered the hospital he was markedly dehydrated and exsanguinated for he had been having 12-15 bloody bowel movements daily for 20 days prior to admission. Red blood count revealed 1,750,000 with 30 per cent hemoglobin. Stool examination revealed ameba in large numbers. The handling of this case was first to treat his anemia and second to treat the dysentery. The patient was given a direct transfusion and saline subcutaneously. He was given seven treatments as outlined above at intervals of two days and within 24 hours following the first treatment, he appeared very much improved and bowel movements were decreased to once or twice daily. After two treatments the stools were negative for ameba and cysts.

W. B., aged 36 years, entered the hospital with the chief complaint of an intermittent diarrhea for 6 to 7 years. He had been having 10 to 12 bloody, mucus stools daily prior to admission. Physical examination was essentially negative. Stool examination was positive for ameba. This patient was given six such treatments with

marked improvement and stool was negative after first treatment.

L. W., aged 38 years, entered the hospital with the complaint of a severe diarrhea which had an acute onset four days prior to admission with cramping pains in lower abdomen and a chill. Physical examination revealed tenderness over the entire abdomen and stool examination revealed motile ameba. The patient was likewise given six treatments at two and three days intervals with much improvement, a reduction in the number of stools after the first treatment, and absence of ameba and cysts.

C. M., aged 65 years, entered the hospital with the chief complaint of a diarrhea, 8-10 stools daily. The first attack of dysentery dates back to 1899 and since that time he has had five similar attacks. The present attack was of one month's duration and was associated with nausea and vomiting. Physical examination was essentially negative but stool examination revealed ameba. He was given four treatments with ipecac with much symptomatic improvement following each injection but stool examination and culture continued to reveal ameba. This patient was given Chapparo amargasa orally in conjunction with two other ipecac treatments and then the stools became negative.

W. J. L., a lighthouse keeper, aged 38 years, entered the hospital with the complaint of diarrhea, 3-4 stools daily. The present attack was of 5-6 months duration. Past history revealed that patient was treated here seven years ago for a similar attack. Physical examination was essentially negative except for proctoscopic examination which revealed a stricture of rectum about 8 cms. from the anus. Stool examination was positive for ameba. After the first treatment patient felt much improved, bowels moved normally, and stools were consistently negative. Stricture of rectum was treated by dilatation with bougies upon two occasions and patient was allowed to return to his family physician for further treatment.

H. W. F., aged 33 years, entered the hospital with a complaint of a bloody, mucus diarrhea of 1 year's duration. The only positive findings were ameba in the stools. After the first treatment, the patient felt much improved and he was given two other treatments. Following these he

requested to leave the hospital and it was granted. Three weeks later he returned to the hospital with the complaint of diarrhea and cramps in the stomach. Stool examination failed to reveal the presence of ameba but smear made at the time of proctoscopic examination revealed them. He is under treatment here at the present time for this condition.

SUMMARY.

Our results obtained by this method of treatment have been very striking, for in all cases symptomatic improvement was noted 24 hours following the first treatment and in most cases the stools remained negative for both ameba and cysts. We have not been able to follow these cases as we would like to but we have had only one return as yet and this patient had to leave after having only three treatments. This type of treatment appears to be very logical to me and I think it is worthy of further investigation and trial.

ABSTRACTS OF THREE INTERESTING AUTOPSY CASES.—Presented by W. C. Dreessen, M. D.

Primary Carcinoma of the Liver.—C. W. M., a white male, aged 65 years, entered the Marine Hospital on August 25, 1930, with a history suggestive of pyloric obstruction. He had had gastric distress since March, 1930, and vomiting since July 21, 1930, and had lost 62 pounds in the six months prior to admission.

On physical examination the abdomen showed occasional peristaltic waves. The mass was noted in the upper right quadrant about the size of a grapefruit, rounded in appearance and was dull on percussion. This dullness was continuous with that of the liver. Lateral to the mass, the liver was enlarged 3 to 4 fingersbreadth below the costal margin. The mass was firm, smooth and moved with respiration and felt more like a tense cyst than a fibrous growth, yet a fluid wave was not demonstrable. The mass appeared fixed to the liver and did not vary with changes in position. There was no tenderness. As a matter of

fact, the patient had not been aware of the growth until his attention had been called to it by the interne making the original examination.

Roentgenogram showed a definite filling defect of the pylorus. Enormous enlargement of the liver was present, interpreted as probably primary carcinoma of the liver with involvement of the pylorus. Fluoroscopy showed no obstructing gastric lesion.

Laparotomy on September 5, 1930, revealed inoperable carcinoma of the liver which was considered by the surgical staff as probably secondary to gastric malignancy. Patient was returned to ward in poor condition and died a few hours later.

At autopsy the liver was found to be enormously enlarged, weighing 4150 grams. It was relatively firm and the anterior surface presented a few neoplastic nodules which were firm, yellowish brown in color. Attached to the right lobe of the liver by broad base was a tumor mass which was felt on the physical examination. This mass was rough and irregular on its outer surface and on sectioning it offered only slight resistance to the knife. Its mottled cut surface showed areas of pinkish grey cellular tissue separated by strands of connective tissue and dirty greyish areas with hemorrhagic zones. The mass was friable and while hemorrhage was abundant, it was difficult to demonstrate blood vessels. Near its attachment to the liver the tumor had destroyed liver substance except for a narrow rim. The structure was that of a primary neoplasm of the liver.

Tuberculoma of the Pons with Miliary Tuberculosis.—J. S., merchant seaman, white male, aged 44 years, was admitted to this hospital on October 14, 1930, with diagnosis of acute adenitis of left cervical gland and right facial paralysis.

He had had tuberculous glands removed from the right side of neck at 12 years. The right facial paralysis was the result of an operation for a tumor in the region of the lobe of the right ear. The gland on the left side of the neck had progressively increased in size over a period of 70 days. (It will be of no interest in this discussion since at postmortem it was found to be a cyst of submaxillary gland.) There had been no

subjective symptoms. He had had a pulmonary hemorrhage April, 1930.

Chest findings on October 15 pointed to infiltration of the lungs by a pneumonic process from 5th dorsal spine and 4th rib up on the right side and from 4th dorsal spine and 2nd rib up on the left side.

The right knee jerk was somewhat exaggerated.

Roentgenogram of the chest was reported as follows on October 18, 1930: "Extensive pulmonary tuberculosis of both lungs miliary in type with small cavity on left apex." Sputum was positive for tubercle bacilli on November 8, 1930. November 13 patient complained of numbness of the right side of his face, right arm and leg. Marked weakness of the right leg was noted with flexion of the foot. Weakness of the right grip was also noted. No apparent reflex changes, however, were noted at that time.

On November 22 he complained of occipital headaches. November 26 the pulse was extremely rapid and respiration were labored. His throat filled with secretions and interfered with respiration. Throat reflexes were apparently reduced. He was stuporous but meningeal signs of irritation were negative. Stupor progressively increased and toward the end there was marked drooling from the mouth and patient died December 1, 1930.

At autopsy the brain was generally congested on its outer surface but free from exudate. The base showed a globular mass occupying the entire left side of the pons and extending into right. On section it was found to measure 2.5 cm. in diameter and was suggestive in appearance to either a tuberculoma or gumma.

Histopathology showed it to be a large caseating tubercular mass with discrete tubercles in periphery; lungs miliary tubercles; larynx: Tubercular laryngitis; spleen: While grossly failed to show tubercles in microscopic section, miliary tubercles were noted; pancreas revealed small tubercles with tuberculous reaction on serous coat in microscopic section.

Pulmonary Tuberculosis with Extensive Cavitation of Both Upper Lobes.—M. S., a colored male, aged 40 years, entered this hospital on January 3,

1931, with diagnosis of laryngitis, cause undetermined. A good history was difficult to obtain because of the extreme weakness of the patient and his virtual inability to talk. He had had pain in his chest for several years. Hoarseness and pain in throat was 2 months in duration. During the two months there had also been progressive weight loss, fever, night sweats and a chronic productive cough.

On examination the patient showed typical phthisical facies. The findings in the chest were in keeping with this general impression and pointed to extensive involvement of both lungs from 5th to 6th dorsal spines and 3rd ribs up on both sides with possible cavitation.

The roentgenogram of the chest was of especial interest because on first observation it gave the impression of collapse of the upper half of both lungs. On closer examination, however, the supposed collapse was considered as extensive cavitation.

The case was terminal on arrival at the hospital and the patient progressively grew weaker and died on January 8, 1931.

At autopsy the clinical diagnosis of extensive cavitation of both apices was born out. The specimen here shows how the entire parenchyma of the upper lobe has been destroyed and the tuberculous involvement of the lower lobes. The other lung presented essentially the same picture.

Actinomyces of the Brain.—M. C., a colored male of 37 years, came into the hospital on October 18, 1930, complaining of inability to use his left arm.

His father, mother and two brothers had died of pulmonary tuberculosis.

October 17, 1930, a tingling sensation was noticed in his left fingertips. This was followed shortly by a period of unconsciousness and on the return of consciousness inability to use the left arm was apparent although he was able to walk. On the nineteenth and twenty-first of October he had two similar attacks, the last leaving him unable to walk. On October 22 he had had pains up and down his back.

The important physical findings were that the pupils were dilated and reacted suggestively to light.

The tongue on protrusion deviated to the left side. A spastic paralysis of the left arm and leg was present; patellar reflexes left-hyperactive; right-hyperactive; biceps-left hyperactive; right-normal. Nuchal rigidity was present. Brudzink's sign was positive; left facial weakness.

Spinal fluid, October 22, showed 3 plus globulin and was cloudy. Total cells numbered 1346, largely polymorphonuclears. Smears of centrifuged specimen with Gram's and acid fast stains were negative for micro-organisms. Spinal fluid pressure was 30 m.m. and rose to 38 m.m. on jugular pressure.

A diagnosis of cerebrospinal meningitis of undetermined cause was made and intensive treatment with various brands of antimeningococcic sera was immediately begun, being given intraspinally 3 times a day during the first four days, of his illness, twice a day for next 2 days, and once a day thereafter. No satisfactory response was noted to serum treatment. A terminal lobular pneumonia was noted on October 30 and patient lapsed into coma and died October 31.

Routine urine, feces, sputum and blood Wassermann were negative on admission. All specimens of spinal fluid were consistently negative for micro-organisms.

Pathological findings: The base of the brain showed considerable infection throughout. An abscess was demonstrable on the middle of left temporal lobe. There was some increase in the inflammatory response between cerebrum and cerebellum. Microscopic tubercles were not demonstrable. The medulla and upper portions of the cord also showed some inflammatory response. The upper surface of the brain was intensely congested and showed relatively little exudate although there was some clouding of the pia arachnoid. Palpation of the surface revealed an abscess cavity in the upper parietal portion of the right cerebrum. Smear from the abscess was reported as follows: "Gram positive pleomorphic streptothrichal organisms seen with variation in size and many are beaded."

Histopathology showed meningeal reaction characterized by endothelial cells predominating. Right kidney showed an abscess 4 c.m. by 2 c.m. at its lower pole with an associated acute pyelitis.

NEW ORLEANS

Medical and Surgical Journal

Established 1844

Published by the Louisiana State Medical Society under the jurisdiction of the following named Journal Committee:

S. C. Barrow, M. D., *Ex-Officio*
 For one year: W. H. Seemann, M. D.,
 Randolph Lyons, M. D., Secretary
 For two years: John A. Lanford, M. D.
 For three years: S. M. Blackshear, M. D.,
 H. W. Kostmayer, M. D., Chairman.

EDITORIAL STAFF

John H. Musser, M. D. *Editor-in-Chief*
 Leon S. Lippincott, M. D. *Editor*
 Willard R. Wirth, M. D. *Editor*
 H. Theodore Simon, M. D. *Associate Editor*
 Frank L. Loria, M. D. *Associate Editor*
 D. W. Jones, M. D. *Associate Editor*
 Jacob S. Ullman, M. D. *Associate Editor*

COLLABORATORS—COUNCILORS

For Louisiana

H. E. Bernadas, M. D.
 Daniel N. Silverman, M. D.
 C. C. DeGravelles, M. D.
 J. B. Benton, M. D.
 C. P. Gray, M. D.
 J. H. Slaughter, M. D.
 D. C. Iles, M. D.
 J. H. Landrum, M. D.

For Mississippi

J. W. Lucas, M. D.
 L. L. Minor, M. D.
 M. W. Robertson, M. D.
 Thomas J. Brown, M. D.
 Willie H. Watson, M. D.
 W. G. Gill, M. D.
 Jos. E. Green, M. D.
 J. W. D. Dicks, M. D.
 D. J. Williams, M. D.

Paul T. Talbot, M. D. *General Manager*
 1430 Tulane Avenue

SUBSCRIPTION TERMS: \$3.00 per year in advance, postage paid, for the United States; \$3.50 per year for all foreign countries belonging to the Postal Union.

News material for publication should be received not later than the twentieth of the month preceding publication. Orders for reprints must be sent in duplicate when returning galley proof.

THE JOURNAL does not hold itself responsible for statements made by any contributor.

Manuscripts should be addressed to the Editor, 1430 Tulane Avenue, New Orleans, La.

THE AMERICAN MEDICAL ASSOCIATION IN NEW ORLEANS.

The decision of the House of Delegates of the American Medical Association to come to New Orleans for their Annual Meeting in 1932 is one which has been received with a great deal of enthusiasm by the local doctors in the city and one which we presume will be received with equal ardor by the doctors of Louisiana, as well as those in Mississippi. The Annual Meeting of this great Association is one which is unsurpassed by any convocation of any

medical organization in the country. There is proffered to the physicians a magnificent program, which is supplemented by a scientific exhibit which graphically illustrates recent advances in medicine. To the scientifically inclined physician or to the one who is anxious to learn, more information may be obtained during the week that the American Medical Association holds forth than by any other method of instruction in which we are familiar. One of the minor features, but no less important at least to some men, lies in the fact that it is possible judiciously to interchange the scientific with the social. Entertainments are provided for the socially inclined, and for the wives of the doctors also an interesting program is arranged.

It would seem that now would be a particularly appropriate time for those doctors not in organized medicine to become members of their Parish and State Societies, so that they may ultimately become members of the great mother of American medicine, participate in the advantages of membership, and become active protagonists of organized medicine. Unfortunately, these suggestions will not reach the eyes of the men who are not members of the State Society, but to those that read these paragraphs and who are workers in organized medicine let it be suggested that they place before their brothers without the fold the advantages of membership in the state leading to ultimate membership in the national organization, so that Louisiana and Mississippi may come to the approaching meeting of the American Medical Association with a very large percentage of the doctors in the State fellows of the organization, who, appreciating the advantages of membership when they attend the Annual Meeting, will permanently become active workers in organized medicine.

Now is the time for Louisiana and Mississippi doctors to join their State societies. Let us all now get after the man who is without and on the outside.

UNDULANT FEVER.

It is rather interesting to speculate upon some of the infections which might by chance be called new, in that their recognition or the appreciation of them is lacking up until a comparatively few years ago. Two outstanding examples of this, undulant fever and tularemia, are obvious, two diseases which have apparently only been present in civilized communities or in certain sections of the world within the last several years.

A recent Milroy lecture by Surgeon Captain Dudley discusses, after a careful survey of naval records of a hundred years ago, the explanation as to why undulant fever should be at the present time relatively common. In the British Navy undulant fever was extremely rare prior to 1855. By 1882 its incidence had doubled. This increase may be explained by the fact that goat's milk was not barred from the ships nor were the men prevented from drinking it. When the ship's crew were forbidden to take goat's milk undulant fever promptly disappeared, but recently it has come about again that the disease is prevalent and present in the ships that are on the Mediterranean service. This is now attributed to the presence of *Br. abortus* in cow's milk. This organism, however, was known to be present in infected cows since 1897. Something has occurred which has made this particular germ pathogenic for man. Theobald Smith has called attention to this particular type of undulant fever, saying that its presence can not be explained merely because the disease escaped the notice of American doctors prior to 1922. What probably has happened has been that either these brucella infections of cattle as they occur in the United States or in English ships, are due to an increase in the infectivity of the bovine type, or else the caprine strain has been imported and is now infecting animals. In certain countries, as for example Porto Rico, there have been no human cases of undulant fever, although the infection rate of cattle with

Br. abortus is extremely high. Dudley assumes from these facts that the organism, an occasional parasite, has wandered away from its specific host to adapt itself to a purely human environment.

PAPERS FOR PUBLICATION.

The editorial staff of a journal owes its first and greatest duty to the readers. The guiding principle of the editors of lay journals is to "give the public what it wants." This is equally the case in medical journalism. Therefore, the unpleasant task of returning a manuscript frequently comes up.

Why is it necessary to reject a paper? The most common reasons for rejection are: there are too many on the same subject already, the theory advanced is not supported by the facts, a talk before a medical society may be the basis of a good discussion, or may be an excellent resume of a subject, and as such is well worth while on the program of a medical society, but since it is composed of nothing but what has long been found in textbooks it is unfair of the society to ask that the journal devote space to an article that does not establish new facts or methods of treatment; that does not set forth the results of research or experience; or that does not stimulate the reader to think or enable him to arrive at worthwhile conclusions.

A journal has, necessarily, a limited amount of space to devote to papers. To publish everything that is sent in would cause a printing expense that spells bankruptcy. The readers would soon raise a storm of protest because of the constant repetition.

The society may find other ways of complimenting an essayist without nonchalantly voting that his paper be published. As soon as the applause has subsided a moment devoted to reflection should suffice in determining whether the essay measures up to the standards of practicability, timeliness

and originality. Of course, after some hasty, or thoughtless, member has moved that the paper be published, few have the backbone to go to the aid of the long-suffering and over-worked editor, at the risk of offending the essayist, by suggesting that, while the paper was most interesting and well presented, it is not necessarily of the type that the journal publishes.

It is respectfully suggested that the officials of local societies might save themselves and the editors the necessity of making unpleasant explanations by the addition to their by-laws of a provision to govern the publication of essays presented to the society.

J. S. ULLMAN, M. D.

HOSPITAL STAFF TRANSACTIONS

MISSISSIPPI STATE HOSPITAL.

Fondren, Mississippi, May, 1931.

Abstract: Bromide Intoxication.—R. B. Zeller, M. D. The patient, a white male, age 36, was admitted to the hospital March 17, 1931; occupation, reporter.

Present Complaint: Restlessness, talkativeness, unsteady gait, speech thick and indistinct.

Previous History: Has used alcohol periodically since the age of 20, having been arrested several times for drunkenness and has taken treatment for alcoholism at least twice; gonorrhea in February, 1931. Has always been hypersensitive and emotionally unstable.

Physical Examination: A well nourished white male. Blood pressure 117/80; chest normal. Deaf in left ear with absence of the tympanic membrane. No rash. Face droops slightly on right. Deep reflexes exaggerated. A slight urethral discharge. Some incoordination of extremities.

Mental: Patient was euphoric with flight of ideas. Correctly oriented.

Serology: Blood Wassermann and spinal fluid negative. Blood bromide—over 300 mg per 100 cc.

Course: On March 19, the patient still confused mentally, tried to light a cigarette on an electric light bulb. Sleep continued disturbed.

March 22, remains slightly elated, still restless and talkative but less emotional.

March 25, Blood bromide concentration between 175 mg and 200 mg per 100 cc.

April 1, Blood bromide concentration 75 mg per 100 cc.; patient much less restless.

April 5, patient appears normal mentally. The urethral discharge has disappeared.

April 9, blood examination at this time shows no trace of bromides. He was discharged as restored on April 13, 1931.

Diagnosis: The thickness of speech and marked incoordination of the extremities with his correct orientation suggested more than an alcoholic intoxication. The examination for bromides established the diagnosis.

Treatment: Sodium chloride tablets, 60 grains each, given dissolved in a glass of water four times a day, treatment being instituted the day after admission and continued until April 5. Serenium, grains 1½ three times daily used for the urethritis. Continuous baths, sixty minutes each, at 95° F., given daily.

Comment: Patient claimed a physician had given him some medicine for insomnia with instructions to take some when he felt bad. As he felt bad most of the time, he had the prescription refilled. It suggests itself that it might be well to caution patients when giving bromides.

Abstract: Carcinoma of Pancreas with Cholyli-thiasis.—R. B. Zeller, M. D.

Patient: A white female, aged 63 years, married, admitted to the Mississippi State Hospital in 1905 with an uneventful record until the present. **Mental Diagnosis:** Schizophrenia.

Complaint: On March 27, 1931, patient showed loss of appetite and expressed a desire to remain in bed.

Family History: Mother died at age 60 from "liver trouble."

Personal History: Yellow fever at age 36.

Physical Examination: Patient was obese with a normal pulse, temperature and respiration. No abdominal masses could be palpated, no pain or tenderness. March 30, slight jaundice of the skin first noticed.

Urinalysis: Acid reaction; sp. gr. 1018; albumen present; fatty and granular casts noted.

Stools: No parasites, occult blood or undigested fat particles noted.

Blood: Erythrocytes, 3,200,00; Hb. 46 per cent; leukocytes 7,600 with 76 per cent polymorphonuclears; Wassermann reaction negative; Blood sugar 170 mg per 100 cc.; Van den bergh 8.6 mg. per 100 cc.; icterus index 11.2; sedimentation index (1 hr) 31.

April 1, jaundice progressively increasing. Heart action continues strong. Abdomen flat and without tenderness.

Diagnosis: Considering the age of the patient, the deepening painless jaundice, the secondary anemia, marked sedimentation index and evidences of obstruction, a diagnosis of carcinoma of the head of the pancreas was made.

Course: On April 8, patient complained of increasing weakness, but able to get out of bed at times.

April 15: Urine alkaline in reaction with neither albumen nor casts. Pulse rate 80; temperature 98.2; respiration 18.

April 19: Temperature 100, pulse 128, respiration 40. Patient still does not complain of either pain or tenderness. Appetite is poor.

April 20: Patient died this afternoon. Was drowsy and showed considerable respiratory distress just before the end.

Autopsy: At autopsy, Dr. D. D. Baugh found: An obese elderly female, jaundiced, post mortem lividity present. Chest apparently normal except for hypostatic congestion. No excess of peritoneal fluid found. Liver normal in size, edges rounded and gall-bladder showed a thickened wall; twelve stones were removed from the bladder with four to six facets each, varying in size from a marble to a small pea, smooth brownish cholesterine composition. Total weight of stones 16.5 gs. Two smaller stones were removed from cystic duct; none found in common duct and no purulent material. Following the common bile duct downward, a hard mass was found which held the duct in its border. The mass, which proved to be the head of the pancreas was firm, nodular, flattened, and the size of an apple. The remaining part of the pancreas and the other abdominal viscera were grossly normal in appearance.

Comment: The insidious onset without any complaint except that of weakness and the rapid termination of the case were of interest. The stones found in the gall-bladder which apparently had caused no inconvenience were also of interest.

VICKSBURG SANITARIUM AND CRAWFORD STREET HOSPITAL STAFF MEETING.

JUNE 10, 1931.

Abstract: Fracture of Cervical Vertebra.—Dr. A. Street.

Patient: White, female, aged 42, married, one child.

Complaint: Fell backward from a swing ten days ago and was unconscious for about six hours. Since the accident, there has been much pain, which is sharply accentuated by head motion. There has been no paralysis, no areas of anesthesia and no paresthesia. No headache. General health, appetite and digestion are good.

Physical Examination: There is sharp pain in the neck on active or passive rotation of the head. There is tenderness elicited by pressure on the spinous processes of the fourth and fifth cervical vertebrae. Examination otherwise not remarkable. Temperature normal.

Examination of blood and urine showed nothing abnormal.

Roentgen-ray examination showed fracture of the lower anterior portion of the body of the fifth cervical vertebra with the fragment displaced downward and forward.

Treatment: The neck was immobilized by application of plaster to shoulders, neck and head.

Discussion: The most important element of fractures of the spine is damage to the cord, and in the days before the common use of roentgen-ray diagnosis, spine fractures were occasionally diagnosed on the finding of evidence of cord damage alone. Since perfection of roentgen-ray technic and its extensive use in spine injuries, many fractures, without cord symptoms and without visible deformity, are being detected that formerly would have been overlooked.

Abstract: Carcinoma of the Cecum.—Dr. J. A. K. Birchett, Jr.

Patient: White, female, aged 64, married, five children. Admitted to hospital May 7, 1931.

Chief Complaint: Lump in lower abdomen with cramp-like attacks of pain.

History of Present Complaint: Has noticed a sense of fullness or weight in the right lower abdomen for the past year; has gradually increased in severity. For the last six months has noticed that mass seemed to get larger at times with severe colicky pain and sensation of something moving in the abdomen. While working,

as stooping over flower bed or leaning over, the pain would come on suddenly and be lancinating, abating as soon as position was changed. Has been troubled with constipation for the last five or ten years; now always has to take a laxative to get bowel movement. No intermittent attacks of diarrhea; never passed any blood or mucus from bowel in any large amounts but has been known to have had what she thought was bleeding piles two years ago.

Post History: Has had five children; no operations. For past two years has been suffering with severe headaches and vertigo and has been told that she had severe kidney disease. No digestive disturbance except constipation which is getting progressively worse. Bowel movements lately have been accompanied by pain and straining. Has marked palpitation and dyspnea on exertion but this is relieved by rest. Had menopause at 41; no discharge or bleeding since that time.

Family History: An adopted orphan; no antecedent history obtainable.

Physical Examination: Small, rather poorly nourished white female, past 60 years of age; walked into clinic. Hair gray; false teeth; throat negative; no thyroid enlargement. Heart rate 88; no murmurs. Blood pressure 190/100; lungs negative. Abdomen shows some gaseous distention and a mass in right lower quadrant in region of cecum, freely movable, seeming to get smaller under gentle pressure but patient complains of pain upon manipulation. Pelvic examination not permitted. Skin rather dry and slightly discolored; extremities negative.

Procedure: From the history of bowel disturbance and severe constipation, it was thought that the palpable mass was a tumor in connection with the colon, in the vicinity of the cecum. For this reason a barium meal was given to follow the passage of the barium and to outline the existing mass. Before the meal was given, however, a barium enema was given which stopped at the upper border of the mass, which was found to extend into the ascending colon. The barium meal given the next day showed a narrowed lumen of the cecum and ascending colon with only a small trickle of barium passing through. From this evidence, a diagnosis of an obstructing mass in the ascending colon and cecum, probably malignant, was made and exploratory operation advised.

One week of preliminary treatment included enemata daily to lower bowel, the administration of glucose intravenously and daily stomach lavage to educate the patient and get her accustomed to

the use of the tube so necessary as a post operative means of treatment.

Surgical Procedure: Under spinal anesthesia, a long right rectus incision was made. The peritoneum was normal. The mass noted at examination was a large, indurated cecum with edematous congested appendix. The terminal ileum for a distance of ten to fourteen inches was leathery in appearance and feel and twice the normal size. No visible peristalsis in this portion of intestine. The cecum was movable but attached to right pelvic and lumbar shelf posteriorly due to old inflammatory bands. There were enlarged glands posterior and in mesentery. The adhesions were gradually freed and the cecal mass lifted out of wound as the peritoneal reflection was cut away posteriorly. The ascending colon was ligated between intestinal clamps and, placed well above the annular growth, the distal end of colon closed and turned in making a blind pouch. The next step was the securing of the blood supply of the cecum, which was done carefully and close to cecum to avoid the middle colic artery and its main branches. With the ligation of the mesentery, the terminal ileum was divided two inches from the ileo-cecal valve and the proximal end turned in and closed. Six inches from the end the ileum was anastomosed, side to side to the transverse colon and the end of the ileum brought out of the lower end of the wound to be opened later if enterostomy was thought advisable.

Subsequent: Patient was in good condition at close of operation. Blood pressure 140/90; pulse 120. The post-operative period was uncomplicated for the first 96 hours on intravenous glucose twice daily and gastric lavage with duodenal tube; no rise of temperature and no evidence of peritoneal irritation, no abdominal distention. There are passages of gas from lower bowel with small amount of fecal matter which was evidence of functioning ileo-colostomy. On the morning of the sixth day, patient began to complain of headache and developed delirium with accelerated pulse rate, up to 140. Pulse full and strong. No evidence of hemorrhage. Blood pressure was 150, systolic. The cerebral condition was judged to be of toxic origin and at this stage 500 cc. of citrated blood was given in the vein but with no improvement in the mental condition. Patient gradually went from delirium into coma and died on the seventh post-operative day. The pulse at death was 70 with rapid respiration suggestive of Stokes-Adams syndrome, but atropine gave no improvement. A post mortem was requested but refused.

Discussion: The reason for presenting this case is to bring out two points: 1. Whether we

were justified in a one stage operation in this case. I believe the outcome would have been the same following a primary ileo-colostomy before the complete resection for I think that in this case the immediate cause of death was a cerebral complication. There was no evidence of any disturbance within the peritoneal cavity. 2. The many complications that can arise in surgical patients which are past 60 years of age: the older the patient the more the risk.

Abstract: Subacute Mastoiditis with Rupture Internally and Externally.—Dr. C. J. Edwards.

On May 18, at 8:40 p. m., Master T. H. walked in for examination of the ear. He was a boy ten years of age, slight in build, small for his age, with a stiffness of the neck on right side, with head inclined towards left. Had not been confined to bed. Gave history of earache three months previously with purulent discharge. Swelling was of two days duration. No pain but interfered with movement of head.

Physical examination revealed a right purulent ear, a swelling about the size of a lemon over the mastoid area, extending upward. Moderately enlarged glands of the neck on right side only. Swelling did not pit on pressure. Roentgen-ray showed a dense shadow over mastoid. Blood showed leukocytes, 19,400; neutrophils 65 per cent. Temperature 99.8°F.; pulse 110. Immediate operation was advised and consented to.

Under ether anesthesia, an incision was made through the swelling down to the mastoid. With a hoe-shaped periosteal elevator the periosteum was removed. During this act external table was broken through with escape of about two drams of pus and exposure of dura and lateral sinus. As this opening was enlarged it was found to extend backward and inward exposing the lateral sinus and dura which were covered with granulations. A small walled off abscess about one inch long by one-half inch wide between the dura and the skull extended backward and inward. The whole external tip of the mastoid was necrotic as well as the internal plate. The mastoid tip was lifted out and severed from the muscle with scissors.

Pulse and respiration became bad and only a light curettement of granulations on the lateral sinus and dura was done. An iodoform pack was placed in the cavity and incision closed.

On the third day the temperature rose as high as 101°F. and then gradually subsided on the fourth day, never later rising above 99°F. The dressing was kept wet with Dakin's solution and was not removed for forty-eight hours, when a new one was applied. Patient was discharged

on his eighth day of illness, practically cured, still having a wick in the lower part of wound to facilitate drainage.

Pus from mastoid showed *Bacillus mucosus capsulatus*.

Abstract: Double Vagina With Two Distinct Uteri.—Dr. S. W. Johnston.

My report this evening is of a negro woman, aged 24, who came to me on May 3, suffering with frequent attacks of nervous indigestion.

On physical examination, I found a well developed colored female, weight 115 pounds, height 64 inches. Her breasts were well developed and her general condition seemed to be above that of the average negro woman. Her blood pressure was 118/70.

She gave a history of menstruating regularly since the age of 13; no pregnancies nor any irregularity of menstrual flow. On vaginal examination, I found two perfectly developed vaginas, one anterior to the other. There was a well developed fold completely separating the anterior from the posterior. The posterior had evidently been used most in coitus because it was larger and the walls showed fewer vaginal folds. There were two distinct cervixes and both uteri seemed well developed.

I have instructed this woman to report to me during her menstrual period so as to ascertain if both uteri function together. I shall report to you later my findings.

CLINICO-PATHOLOGICAL MEETING OF OUR LADY OF THE LAKE SANITARIUM.

BATON ROUGE, LA.

The Clinico-Pathological Meeting of Our Lady of the Lake for the month took place on May 27, with the following members of the Staff present: Drs. K. Irwin, W. H. Cook, H. G. Riche, J. H. McCaa, W. H. Pipes, C. A. Weiss, R. McMahon, R. C. Kemp, T. J. McHugh, H. W. A. Lee, Cecil Lorio, Jas. M. Adams, T. S. Jones, J. J. Robert. Dr. Riche presided over the meeting.

The cases presented were: Cardio-renal syndrome, with autopsy, Dr. H. W. A. Lee; Fibrocystic disease of the breast, three cases, Dr. Kernan Irwin.

The following is a brief resume of the cases:
Dr. H. W. A. Lee.

Mrs. K. G. aged 80 years, white female.

Chief Complaint: On March 27, 1930, patient was first seen by the attending physician on

account of vomiting coffee ground substance. She had a vomiting spell the day before and vomited about half a basin of this substance. When I saw her she was nauseated and had vomited a brownish fluid. Bowels have not moved for 3 or 4 days.

Physical Examination: Temperature 99°, pulse 80, blood pressure 186/108. Chest negative except for a slightly enlarged heart. Abdomen is enormously distended (which she has had for a year). Very tender over the epigastrium and patient would not allow palpation to any extent.

Past History: Patient broke her hip about 4 or 5 years ago and has never walked since.

Progress Notes: When I saw this patient March 27, she showed no signs of hemorrhage. I had an enema given and a prescription of novocaine. All food was stopped for 24 hours. Advised hospitalization and roentgen-ray but this was refused. She refused to take her medicine after a day or two. Her bowels would not move except by enema and the nurse said her stools were never black but light yellow.

I saw her again April 8, when she complained of nausea and vomiting. Her bowels had not moved since April 1. I saw her again on April 9 and 10 while she seemed to be all right. I was called again on the twenty-first and found her bowels had not moved for a week although she said she had taken a considerable quantity of purgative.

On the first of May she was complaining of nausea and had a severe pain in the right foot. This pain had begun several days before. On examination of the foot, there was found to be gangrene of the great toe and slight discoloration of all of the other toes. Pulse 90, temperature 99.5°. I could not make out any definite heart lesion and the sounds were very distant and inaudible. She was given digitalis and morphia. Her leg and foot were wrapped in cotton batting and external heat applied. The gangrene gradually spread up to about the junction of the lower and middle third of the leg. Her urine was negative for sugar. It contained a trace of albumen. She had to have a daily enemata for her bowels until about two days before her death when she developed a diarrhea. Her abdomen then went down. On the afternoon of her death, she had a chill and died in five minutes.

Autopsy Protocol: Mrs. K. G. Body of white female, very well nourished, 63 inches long, about 80 years old. No rigor mortis, post-mortem lividity present. There is gangrenous condition of the right foot which extends to above the

ankle to about the junction of the lower and middle thirds of the leg.

Chest: Lungs apparently normal. There are old pleuritic adhesions posteriorly and at the apices of both lungs. Heart is slightly enlarged. There is a very distinct hardening of the coronary arteries. Ribs break very easily. Sternum soft.

Abdomen: Stomach was contracted so that it measures about 2½ inches in diameter at the cardiac end and about 2 inches just above the pylorus. Externally the stomach was hyperemic. The mucosa was intensely hyperemic and there were petechial hemorrhages. Rubbing with the back of the knife produced a large amount of blood. The microscopical examination shows an hyperemia of the mucosa. There is no leukocytic infiltration. There are petechial hemorrhages. There is no malignancy. The muscularis is apparently normal.

The liver is mottled yellow and red, nodular. There is a small amount of exudate along the anterior edge. The cut surface shows an increase of connective tissue. The microscopical examination shows an increase of connective tissue, fatty degeneration of the liver cells. There are some areas that show hyperemia.

Gall-bladder is negative.

Spleen measures 11x4x5 cm. Soft. Capsule smooth. There are several small white nodules resembling tubercles. On section the pulp scrapes off easily and the trabeculae are rather well marked. The microscopical examination shows a rather large amount of pulp. These are areas near the capsules that gives the impression of tuberculosis.

Kidneys measure 9x5x4 cm. They are small, contracted, capsule peels with difficulty and leaves a rough surface. There are numerous cysts of various sizes filled with clear fluid and some with bloody material. There are several small, white, areas under the external surface and on the papillae which give the impression of suberclcs. The microscopical examination shows an intense hyperemia with cloudy swelling of the epithelium and some destruction of same. There is a large increase of connective tissue. The tubules are constricted or closed in certain areas with cystic dilatation above. Some of the glomeruli have undergone fibrosis. The small white areas give the impression of being tuberculous.

Pancreas is apparently normal. The microscopical examination is negative.

Intestines and appendix are negative.

Uterus and adenexa are negative.

All of the vessels of the mesentery, pancreas, spleen, and some of the stomach show an extreme condition of arterio-sclerosis.

Diagnosis:

Hepatitis, atrophic
Splenitis
Nephritis, interstitial
Hemorrhages of the stomach
Arteriosclerosis
Gangrene of foot.

Mrs. Ruby S., age 25, white female. Admitted May 17, 1931. Discharged May 24, 1931.

Chief Complaint: For the past month patient has complained of pain in the left breast. It was sensitive and very much enlarged. In April, 1930, she had a small fibroma removed from the left breast and she said that she had been conscious of it for three years. At the same time, breast tissue was removed from the right breast and she had no trouble since that time. As soon as the pain and swelling was felt three weeks ago, patient became alarmed as it was the second time she had trouble with the left breast.

Past History: She had two children and three miscarriages. She was operated in 1930 for chronic mastitis of right breast and fibroma of left breast.

Physical Examination: Both breasts show a small scar about two inches long radiating from the nipples. Left breast about one quarter larger than the right. There is a diffuse mass which is somewhat nodular and firm. Painful on palpation. There is some enlargement of the axillary lymph glands.

Laboratory Examinations: Urine; acid, 1.034, trace of albumen. Blood; WBC 4,850, L 33, M 2, P 63, E 1, B 1.

Left breast was removed in toto on May 18.

Tissue examination: Breast measure 14x8x3 cm. Nodular. On section there are numerous white, hard masses and streaks. Microscopical examination shows an hyperplasia of connective tissue with apparently some acini formation. There are no apparent signs of malignancy: fibroadenoma.

Mrs. E. B. H., age 43, white, married.

Past History: In 1927 patient complained of soreness of left breast before each menstruation for some time. In August she developed a nodule of irregular shape occupying the middle of the breast. It was attached to the nipple. Hard and quite sensitive. No involvement of the axillary glands. Mammectomy was performed. The pathological report showed a cystic fibro-adenoma.

Present complaint is now the right breast has a feeling of soreness previous to each menstua-

tion. She has been treated for some time with roentgen-rays. This has apparently diminished the size of the "lump" in the breast. The improvement has only been temporary. She was advised by the attending physician to have the breast removed.

Physical examination is negative except for a large mass in the right breast. This is apparently in the glandular tissue. There is no involvement of the axillary glands.

Laboratory Reports: Urine; acid, 1.030, negative. Blood, WBC 8,050, L 31, M 11, P 57, E 1.

Tissue: Right breast measures 15x15x6 c.m. There is a rather firm mass over the center of the breast. On section there is apparently a large increase in connective tissue. This is rather irregular in shape and infiltrates into the surrounding tissues. There is apparently an increase in acini formation which are surrounded by a thick layer of connective tissue. In certain areas there is apparently a proliferation of new connective tissue. In other areas there are a few scattered epithelial cells. These last two are probably due to the roentgen-ray treatments. There is a general increase in the connective tissue: fibroadenoma.

Mrs. P. H., age 46, white, widow. This patient has a hard lump in the right breast for some time. This is painful at times.

Physical examination negative except for mass in the right breast. This is hard and in the breast tissue.

Laboratory examination: Urine; acid, 1.020, faint trace of albumen. Blood count, WBC 4,750, L 27, M 5, P 66, E 4.

Tissue: Right breast measures 13x13x5 c.m. The largest part of the center is occupied by a large white mass which radiates into the surrounding fatty tissue. In the center of the mass there is a large hematoma which is organizing. This measures about 2.5 cm in diameter. The microscopical examination shows an hyperplasia of connective tissue. There is apparently some increase in the number of acini. No malignancy could be found: fibroadenoma.

HOTEL DIEU.

The regular monthly meeting of the Visiting Staff of Hotel Dieu was held Monday, June 18, Dr. Theo. J. Dimitry presiding.

The scientific program comprised: 1. The presentation of a case of Brain Abscess by Dr. Homer Dupuy, abstract of which follows:

This is a case handled by Dr. Jules Dupuy and myself; we had the assistance of Drs. Francis Murphy, A. Anderson, and J. T. Nix, and there is glory for everyone. For we are demonstrating a victory as we believe the patient to be entirely

cured, and at the time of operation, mortality was 75 per cent.

It began as a case of chronic recurring otorrhea. The original infection was in the middle ear. When the patient first came to us he was showing symptoms of brain abscess—very apathetic and of slow mentality. There had been intense headaches.

Mastoidectomy was performed as a result of roentgen-ray investigation, and the pain ceased, but patient continued apathetic, and, four days after the operation, developed edema of the facial nerve (third branch) on the opposite side.

On June 6, the following day, patient gave a very remarkable sign of trouble in the temporal-sphenoidal lobe—word aphasia—inability to connect names of objects with the objects themselves. The infection of the middle ear had probably gone to the brain first and then to the mastoid.

Craniotomy was performed on June 7. Foul pus found as soon as the dura was entered. The whole temporal lobe was exposed; exposure over the middle ear showed dura covered with granulation tissue. The abscess, fortunately, was surrounded by a very thick capsule. At least three ounces of pus were removed, and a rubber dam drain left in the wound.

Word aphasia continued even after the operation. On June 8 circulatory depression manifested, and Dr. Nix suggested blood transfusion; this was given with the result of marked improvement. On June 12 patient was brighter, aphasia less, and on June 13 it had entirely disappeared. The rubber dam tube continued to drain and the sac grew smaller each day.

The patient is presented to you tonight with normal temperature and pulse; the drain has been removed; and we believe him entirely cured.

This case was discussed by Drs. Anderson and Jules Dupuy.

2. Dr. D. N. Silverman gave a resume of the papers read at the recent meeting of the American Gastro-Enterological Association held at Atlantic City. This was presented briefly as follows:

A case of hypoglycemia by Dr. George Mizell of Atlanta—a not unusual condition. Patients complain of weakness, sweating, hunger and rapid pulse; it is supposedly characteristic of individuals in the South, because not enough attention is given to the ratio of carbohydrates to fats in the diet. Protein consumption is high. Glucose tolerance tests give low readings after administration of glucose. The condition is corrected by a change of diet.

Next was a study of gastric acidity in some 2500 cases of men, women and children by Dr. Frances Vanzant of Rochester, Minn. She found

an absence of hydrochloric acid in 4 per cent of the child cases, 20 per cent between the ages of 20 to 45, and 36 per cent in the older individuals. This seems to indicate that if there is plenty of hydrochloric acid, you may live to an old age.

Dr. Ernest Gaither of Baltimore explained the recent trend toward the use of histamine in the study of gastric secretions; he concluded that histamine is the best preparation for the determination of diagnosis. His research covered one hundred cases.

The effect of coffee upon digestion was discussed by Drs. Killian and Shattuck of New York. They studied the different ingredients of coffee, and declared that volatile oils have a detrimental effect in producing excessive acid, and that stale coffee is far worse than fresh.

We all know what a vital condition is Addison's disease. This was discussed by Drs. Aaron and Hartman of Buffalo. They stated that a patient can be kept alive several months by subcutaneous injection of adrenal cortex, and that, as indicated by their research, a deficiency of adrenal cortex is an important factor in this disease.

Dr. Clement Jones of Pittsburg presented a case of acute hemorrhagic pancreatitis. He operated, by opening and draining the abdominal cavity, within two hours after the onset. Patient was discharged well after a convalescence of eight weeks.

The most interesting feature of the meeting were experiments presented by the famous Professor Walter B. Cannon of Harvard on the study of smooth muscles. He found that exposure to cold, as well as exertion, produced rapid heart action, and the liberation of adrenalin. Some of the animals tested were sympathectomized, and reacted in the same way. Other results presented were: That he was able to remove the entire sympathetic nervous system and the animals ran about perfectly normal; but by removing half the sympathetic nervous system, certain smooth muscles would go into action and other would not, in the particular region where the sympathetic system was not removed. He also found that the female could reproduce but the male could not, after the removal of the sympathetic system.

On the second day, Dr. Truman G. Schnabel of Philadelphia discussed cases of acute abdominal pain similar to tabes, due to sickle-cell anemia, which have all the appearance of being due to a condition requiring surgery.

Drs. Jordan and Kiefer of Boston reviewed 800 cases of medical treatment for peptic ulcer. They found that in the duodenal ulcers, there were 9 per cent recurrences in the first year, 46 per cent after five years, and 15 per cent hemorrhage.

Drs. Mateer and Baltz of Detroit studied the condition that is always with us and so annoying—spastic colon. They came to the conclusion that this is due to micro-organisms. Vaccine therapy was used, employing vaccines to which the patients showed skin hypersensitivity. The problem is presented as to whether one is dealing with results of specific vaccine treatment or with non-specific protein therapy.

Drs. Eusterman and Kirklin of Rochester, Minn. presented gastric lesions, and made a plea for more co-operation between the clinician and the roentgen-ray man for the diagnosis of gastric lesion.

Drs. Bartle, Lyon and Sterner of Philadelphia, presented an interesting and instructive paper on the choloretic action of decholin. They found, from numerous experiments, that there was something in this preparation that produced a stimulation on the part of the liver.

The last paper was presented by the well known Dr. Marx Einhorn, who is nearly seventy years of age. He showed the manner of differentiating, by means of the roentgen-ray, between the lesions in the gastro-intestinal tract and in the kidney, through the use of various dyes. These preparations are of prime importance for the diagnosis and treatment of digestive disturbances.

Dr. Daniel J. Murphy presented a paper entitled "Interesting Aspects of Rectal Traumatism," in which he gave the classifications of rectal wounds and injuries and also included a brief resume of the status of foreign bodies in the rectum. His paper brought out the importance of the integrity of the peritoneum in all rectal injuries, for just as soon as the peritoneal cavity is opened the injury becomes a very serious one and the need for surgical intervention is great while the out-look is doubtful but grave.

If by chance the bladder is also injured along with the rectum there is a serious complication because of the urinary infiltration which produces a rapidly spreading necrosis.

He described a type of rectal injury that is increasing in frequency especially in the industrial centers that is caused by the introduction of compressed air into the rectum. It is well understood that the slight distention of the rectum and colon with air is a great diagnostic aid in a number of cases, but when too much air is inserted the dangers of over distention and rupture are apparent. Pneumatic rupture of the rectum most frequently occurs as the result of hazing or initiating a new employee. In about 95 per cent of these cases the unfortunate one is bent over and while in this posture the com-

pressed air is turned on, passes through a small nozzle with a pressure ranging from 40 to 125 pounds. The nozzle is placed at or near the anus and the air forcefully enters the anus and rectum with the possibility of a rupture of the rectum, sigmoid, colon or small intestines. This is usually followed by an out-cry of pain, fainting or collapse. In these cases the rupture occurs chiefly at the sigmoid flexure.

He pointed out the fact that bleeding is encountered in rectal injuries but as a rule primary hemorrhage is not present to a serious degree yet secondary hemorrhage is one of the serious complications of most rectal injuries.

The symptoms of an anorectal injury varies with the extent, character and location of the wound, the time elapsed between when it was made and operation and whether or not the wound drains freely.

All traumatic lesions of the upper rectum are more serious than those of the more distal portion because they are more frequently complicated by infection, abscess and peritonitis.

Contused and lacerated wounds cause dangerous manifestations less frequently than the deep punctured wounds because they are larger, more superficial and drain better.

Diagnosis: This is comparatively easy when a history has been taken, the manner in which the accident occurred, and noting the external evidences of trauma, the bruising, the swelling and laceration of the perianal skin or the abdomen. A digital or proctoscopic examination will reveal to a great extent the involvement of the rectum.

He mentioned also an aid in diagnosis that had come to his attention through the kindly suggestion of Dr. J. A. Danna. In cases of perforation into the peritoneal cavity there will be produced an accidental pneumo-peritoneum which can be shown by the use of the roentgen-ray. This aid was of diagnostic value in a case which will be reported tonight.

Treatment: This may be simple or complicated depending on the type of injury, but under all circumstances the wound must be immediately cleansed and the bleeding arrested so that the character of the injury may be determined. In clean incised wounds the injury is closed with suture, but whenever there is a contused, lacerated or pneumatic injury institute sufficient drainage at once. Wherever there is an abdominal perforation an exploratory operation must be made. When the abdomen is opened one can easily ascertain the real damage done and perform such corrective measures as will fit the individual case.

A life saving procedure in a vast majority of these cases of rectal perforation is the operative procedure of making a temporary artificial anus through a left colostomy which permits the evacuation of feces without disturbing the rectum and anus, which need complete rest at this time for an early and uneventful healing.

He presented two cases, one was in a man forty-six years of age who complained of rectal bleeding without any other sign or symptom for over one month. He was treated by other physicians for hemorrhoids, but a proctoscopic examination revealed the presence of a dental bridge that was caught by its hook like projection to the anterior rectal valve. It was removed very easily. In going back on the history the patient reported that he must have accidentally and unknowingly swallowed his plate four months before. His bleeding started on a drinking bout.

The second case was that of perforation of the rectum and sigmoid by an iron picket. In this case a left colostomy was performed together with very free drainage, of the wound at entrance. At the present time this patient, a child of ten years is absolutely cured of his rectal injuries and also his colostomy opening.

This paper was discussed by Drs. J. A. Danna, M. J. Gelpi and Jerome Landry.

There was the discussion of a case of Dr. Louis Levy on which an autopsy had been performed, autopsy diagnosis being as follows: Chronic passive congestion and cirrhosis of the liver; chronic diffuse nephritis; myocarditis; edema of the lungs. Dr. Maurice J. Couret and Dr. J. A. Danna, as well as Dr. Levy, contributed to this discussion.

The meeting closed with the statistical report and routine business of the staff. Adjournment was until October, 1931.

TRANSACTIONS OF ORLEANS PARISH MEDICAL SOCIETY

During the month of June the Society held two scientific meetings.

At the meeting held June 8 the program was as follows:

The Rabbit Ovulation Test in the Diagnosis of Pregnancy.

By:.....Drs. E. L. King and John A. Lanford.
Discussed by Dr. Hilliard E. Miller.

The Predisposing Cause of Pulmonary Tuberculosis from the Standpoint of Endocrinology.

By:.....Dr. Emile A. Bertucci
Discussed by Dr. Rigney D'Aunoy.

The Etiology and Prognosis of Sinusitis.

By:.....Dr. John B. Gooch
Discussed by Dr. J. R. Hume.

The meeting of June 22 was voted by the Board of Directors to be called the Frederick Loeber Memorial night in honor of Dr. Frederick Loeber, one of the Founders of the Orleans Parish Medical Society. The program was as follows:

Dr. Frederick Loeber, 1839-1901.

By:.....Dr. A. E. Fossier.

Memories of Dr. Loeber.

By:.....Dr. Otto Joachim.

Scientific Presentations.

Chaulmoogra Oil in the Treatment of Arthritis.

By:.....Dr. Paul A. McIlhenny.

Discussed by Dr. E. D. Fenner.

An Example of What Surgery Can Do in Saving a Certain Group of Cases of Pulmonary Tuberculosis, as Illustrated by a Case Report.

By:.....Dr. Joseph A. Danna.

Discussed by Drs. Alton Ochsner and Shirley C. Lyons.

The attendance at both meetings was very good.

It was with a great deal of satisfaction and pleasure that we learned that New Orleans had been selected for the 1932 convention of the American Medical Association. A majority vote of 58 over Memphis and San Francisco gave us the meeting. The invitations of the Orleans Parish Medical Society and the Louisiana State Medical Society were extended last year. We wish to express our gratitude to our Delegates for their co-operation in this matter. The Association of Commerce also assisted materially in getting this meeting for us, and we appreciate their efforts.

During the months of July, August and September the Society will adjourn for its annual vacation. The second quarterly executive meeting to be held July 13 will be the last meeting before adjournment.

The third quarterly installment on the group insurance premium must be paid July 5. Please send in your check by July 1 in order that we may get our check to the home office on the due date.

The various committees appointed for the entertainment of the coming meeting of the Southern Medical Association to be held here in November have been busy during the past month.

The membership of the Society to date is 505 of whom 479 are active members.

TREASURER'S REPORT.

Actual Book Balance April 30, 1931.....	\$1,038.40
Receipts	1,592.47
	\$2,630.87
Expenditures	832.38
Actual Book Balance May 31, 1931.....	\$1,798.49

LIBRARIAN'S REPORT.

One hundred and twenty-three books have been added to the Library during May. Of these 10 were received from the New Orleans Medical and Surgical Journal, 52 by gift, 3 by purchase and 56 by binding. New titles of recent date are listed herewith.

The Convention of the Medical Library Association has come and gone, and from all reports the meeting was most successful and enjoyable. Forty-two persons attended the sessions from 28 medical libraries. The institutions represented are listed on the attached sheet—showing the breadth of interest in medical libraries, in our meetings. The following resolutions of appreciation was extended to the Medical Society and the Medical School as hosts:

"It is always with regret that we come to the end of our meetings. Before we go our various ways, we wish to express to our hosts and hostesses of the past three days, the sincere appreciation of the Association for the perfectly wonderful time we have all had in New Orleans.

"We wish to thank the Orleans Parish Medical Society and the Tulane University School of Medicine, the ladies who so graciously entertained us, and everyone who so hospitably received us into their city and their hearts.

"We have had a wonderful time and wish to say thank you by rising in a body to express our appreciation of the nicest meeting we have ever had."

The Association will be the guest of the Lane Medical Library of Leland Stanford University, San Francisco, next year.

NEW BOOKS.

Ashhurst—Surgery, its Principles and Practice. 1931.

Gunn—Introduction to Pharmacology and Therapeutics. 1931.

Besredka—Immunity in Infectious Diseases. 1930.

Homans—Textbook of Surgery. 1931.

Peters—Quantitative Clinical Chemistry. 1931.

DaCosta—Selections from Papers and Speeches. 1931.

Sachs—Diagnosis and Treatment of Brain Tumors. 1931.

Sinclair—Microbiology and Elementary Pathology. 1931.

Hawes—Talks on Tuberculosis. 1931.

Blanchard—Letters of Dr. Betterman. 1931.

American Laryngological, Rhinological and Otolological Society Transactions. 1930.

Stahl—Concerning the Earliest Growth in the Human. 1931.

Dickson—Posture, its Relation to Health. 1931.

Barker—Eckache. 1931.

LIBRARIES REPRESENTED AT THE NEW ORLEANS MEETING OF THE MEDICAL LIBRARY ASSOCIATION MAY 19-21, 1931.

Michigan University Department of Medicine Library.

Orleans Parish Medical Society Library.

Tulane University School of Medicine Library.

Michigan University Department of Dentistry Library.

Columbia University College of Physicians and Surgeons Library.

Kansas University School of Medicine Library.

U. S. Naval Medical Library (Washington, D. C.)

Cornell Medical Library.

Guthrie Clinic (Sayre, Pa.)

Cleveland Medical Library Association.

Illinois University School of Medicine Library.

Vanderbilt University School of Medicine Library.

Chicago University School of Medicine Library.

Houston Academy of Medicine Library.

Medical and Chirurgical Faculty of Maryland.

Emory University—A. W. Calhoun Library.

Medical Department—Detroit Public Library.

Jackson Co. Medical Society Library.

Washington University School of Medicine Library.

St. Louis Medical Society Library.

Texas University School of Medicine Library.

Ramsay Co. Medical Society Library. (St. Paul).

Duke University Medical Department Library.

St. Louis University School of Medicine Library.

Baylor University School of Medicine Library.

New York Academy of Medicine Library.

Arkansas University School of Medicine Library.

Hotel Dieu Library.

H. Theodore Simon, M. D., Secretary.

LOUISIANA STATE MEDICAL SOCIETY NEWS

H. Theodore Simon, M. D., Associate Editor.

FROM OUR PRESIDENT.

MEDICAL ORGANIZATION AND MEDICAL ECONOMICS.

According to precedent and custom, the President of the State Medical Society is expected to function as best he can during his tenure of office, to study and act upon problems as they arise during his administration, and at the next annual meeting give a report to the House of Delegates on his activities, recommending for their consideration, matters of special importance to the whole society.

Since the office of President-elect was created, giving to the individual chosen to fill this position, a full year to inform himself on matters of importance to the association, it would seem to the writer that a slight at least, readjustment of the program and scheme would be in order. It would appeal to us as logical, more practical and promising of better results, were the incoming President of the association, after a years study of the situation, to give to the membership and officers of the inauguration, his ideas of the main problems that press for solution: the ones that he expects to center his energies upon: the one that he will seek their aid in solving during the coming year.

New problems will arise, old ones will continue to plague us, and regardless of the effort put forth, there will always be much left over for solution and passed on to our successors. However, with some definite scheme in mind known to all, a more coordinated effort must result, and the accomplishment at the end is bound to be greater.

With this idea in mind, I am seeking through the columns of the official Journal, at least a mental contact with every officer of the association, the component associations and every legally qualified physician in the state.

As I view the situation at this time, there are two outstanding needs of organized medicine in Louisiana, and my whole effort this year will be directed towards centering the attention of the profession on this solution.

First and foremost, a perfected organization with a large majority of the legally qualified doctors of the state is essential, as is the case in every organization. With a membership of little over half of the eligible men in the Association, we must admit that something is wrong.

For fifty-two years we have tried to build up the state organization by interest in the Parish Society. In such a large majority of the Parishes,

the membership is so small, it is impossible to maintain interest.

In the District Societies, I believe we have the solution. In some districts more frequent meetings than in the past. I feel confident will get the interest aroused of many whom we have failed so far to win over. In those districts that have been having frequent and regular meetings, but few doctors are found not members of the State Society.

Without organization, nothing can be accomplished; with it, any program we might sponsor will go over, and any evil we combat will go down in defeat.

To the District Societies, I made my appeal for a united effort. Give the men who have not an active Parish association, an opportunity and our membership will grow.

With a perfected, thorough organization of the doctors of the state, functioning smoothly, what problem should they face and press for solution as the most urgent need? Some will be quick to suggest certain scientific questions. I would say no. We need have no fear for the further and constant development of scientific medicine, so long as the medical profession is unhampered and permitted to run its business as the profession, and the profession only, knows it should be run.

The medical economic trend to our mind, looms as the dark cloud on our horizon and must be faced with clear judgment and firm decision rather than with timidity and a fear of criticism. Those who are willing to lie down, who are afraid to stand out and preach what they know is right and even suggest what the assassins of the principles of American Medicine would manacle us with, have no place in our program.

In a recent editorial appearing in the Journal of the American Medical Association, the editor criticised in no uncertain language, the little periodical known to us as "Medical Economics," for discussing so freely and often with doctors, the question of finances, and winds up by stating that only by living up to tradition and past teachings, can medicine continue to advance.

What other undertakings of man today, are advancing by living wholly in the past? And where comes in the evil of discussing finances? The Great Teacher of Man discussed money in many of his parables and in none did he teach other than the love of money was a sin. Times are changing and with or without our will, we must change with them.

Creeping in from all sides, insiduously and relentlessly, the doctor's source of income is being trimmed while we sit supinely by, living upon tradition. That time honored and sacred relationship existing between the doctor and patient by which their professional and business arrangements are mutually satisfactory, must not be disturbed.

However, the state, the public and each community must come to know that the care of the indigent sick is a state and community problem to be met by the whole community and must not be shunted to the shoulders of an individual group (doctors) of citizens. When an indigent is to be fed, organized charities do not call upon the retail merchants association to feed him, but if he is sick, though contributing to all the demands of society, the doctor is supposed to donate his only commodity, medical service. This is fundamentally, economically, logically, morally and in every way, wrong, though in line with what some would call tradition.

Medicine has advanced because of some of its traditional teachings and in spite of others, she is being nailed to the cross today, because she has failed to realize that our complex civilization is forcing a readjustment of all human activities. Unless medicine, as an organization, realizes that evolution has worked and is still working changes in the midst of which no activities of man can stand still, she will soon deserve and meet face to face, controlling influences from without, which will shatter every tradition and render impotent for all time her influence in directing her own destiny.

The practice of our profession is our business, and deep in the hearts of every doctor, he knows this statement is true. He who is afraid of criticism when he knows he is right, can hardly be termed a man.

The State, District and Parish Societies should each have a virile active committee whose duty it would be, to educate, coordinate and direct lay and state medical activities into channels best suited for public good, and at the same time, tactfully and diplomatically, but positively, stand for the principle that no state, state department, subdivision of the state, or organization within the state, have a right to draft our services simply because it has been permitted and condoned in the past. The state and no subdivision of the state has a right to practice other than preventive medicine, save among those who are indigent and others under restraint.

When the profession learns to be a little more deliberate in running up the flag "no charge," in matters of medical service where the whole com-

munity, the state or its subdivisions owe the obligation, the problem will be easier of solution.

The medical trend can be changed, but thorough organization and co-ordinated effort are essential and the frank demand on the part of the doctor for a right to a square deal, a fair wage and insurance against old age.

S. C. Barrow, M. D.,
President, Louisiana State Medical Society.

CHAIRMEN OF SECTIONS.

The following Chairmen of Scientific Sections for the approaching meeting of the Louisiana State Medical Society, Lake Charles, April 12, 13, and 14, 1932, have been appointed by the President:

Medicine and Therapeutics—Dr. Thos. P. Lloyd, Shreveport.

Pediatrics—Dr. J. A. Crawford, Lake Charles.

Nervous Diseases—Dr. F. F. Young, Covington.

Bacteriology and Pathology—Dr. F. M. Johns, New Orleans.

Public Health and Sanitation—Dr. J. A. O'Hara, New Orleans.

Gastro-Enterology—Dr. C. M. Horton, Franklin.

General Surgery—Dr. E. L. Sanderson, Shreveport.

Gynecology and Obstetrics—Dr. J. T. Cappel, Alexandria.

Eye, Ear, Nose and Throat—Dr. Jules E. Dupuy, New Orleans.

Urology—Dr. B. McE. McKoin, Monroe.

Radiology—Dr. G. C. McKinney, Lake Charles.

Orthopedic Surgery—Dr. C. A. Lorio, Baton Rouge.

Those desirous of reading papers should communicate with the various Chairmen as promptly as possible. The program for each Section must be in the hands of the Secretary-Treasurer not later than February 12, 1932.

BI-PARISH MEDICAL SOCIETY.

The East and West Feliciana Bi-Parish Medical Society met in the East Louisiana State Hospital. After an elaborate banquet, the scientific program consisted of a paper by Dr. W. K. Irwin on Blood Transfusion. The paper was discussed by Dr. U. S. Hargrove. Dr. W. C. Norris read a paper on "Dental Sepsis the Cause of Maxillary Sinusitis,"

which was discussed by Dr. E. M. Robards. A vote of thanks was extended to Drs. Irwin and Norris for their presentations of these excellent papers, and the able discussions by Drs. Hargrove and Robards.

EIGHTH DISTRICT MEDICAL SOCIETY.

On June 1, 1931, a meeting of the physicians of the Eighth Congressional District of Louisiana was called to order by Dr. J. H. Landrum of Alexandria, La., councillor for the district. The purpose of this meeting was the reorganization of the Eighth District Medical Society.

The following officers were elected unanimously:

Dr. W. G. Allen of Converse, La., (Sabine Parish)—President.

Dr. Carson R. Reed, of Natchitoches, La., (Natchitoches Parish)—First Vice-President.

Dr. R. G. Ducote of Bordelonville, La., (Avoyelles Parish)—Second Vice-President.

Dr. J. H. Landrum of Alexandria, La., (Rapides Parish)—Secretary-Treasurer.

Dr. S. J. Couvillon of Moreauville, La., (Avoyelles Parish)—Delegate to Louisiana State Medical Society.

Following the above the regular monthly meeting of the Rapides Parish Medical Society was held. A paper on "Errors in Calcium Metabolism" was read by Dr. King Rand, and one by Dr. B. H. Texada on "Syphilis of the Lungs with Report of a Case." This was followed by a motion picture on "Rehabilitation after Fractures."

E. Weiner, M. D.,

Sec.-Treas., Rapides Parish Medical Society;

J. H. Landrum, M. D.,

Sec.-Treas., Eighth Dist. Medical Society.

NEWS ITEMS.

The following men from Louisiana appeared on the program of the American Medical Association in Philadelphia, Pa., the first week in June.

Clinical Lecture—Deficiency Diseases: Clinical Recognition and Management, Dr. John H. Musser.

A Physiologic Basis for the Treatment of Pellagra was presented by Dr. R. H. Turner.

Dr. Charles A. Bahn discussed a paper and also Dr. D. C. Browne.

A paper on Acute Suppurative Conditions of the Hip Joint, was read by Dr. Guy A. Caldwell, Shreveport, La., before the Section on Orthopedic Surgery.

Dr. Charles J. Bloom, Professor of Pediatrics with the Graduate School of Medicine of The Tulane University of Louisiana, addressed the St. Tammany Parish Medical Society, at Slidell, La., on Friday, June 12, 1931, on "Intestinal Disturbances in Infants and Children."

Dr. Henry Daspit, Dean of the Graduate School of Medicine, will attend the Congress of the Pan-American Medical Association in Mexico City, July 12.

Dr. Aristides Agramonte, Professor of Tropical Medicine in the Louisiana State University Medical School, will attend the Congress as a delegate from the New Orleans Chapter.

TANGIPAHOA PARISH MEDICAL SOCIETY.

Another great meeting of the Tangipahoa Parish Medical Society was held at City Hall, Hammond, May 14. Some twenty odd doctors present with a program as before mentioned "from brain surgery to scabies."

Guests adding to the interest of the program were Dr. G. C. Anderson, of New Orleans, subject: "Brain injuries." Dr. T. B. Sellers, of the Southern Baptist Hospital, New Orleans, "Office management of gynecological patients," and Dr. E. M. Robards, East Louisiana State Hospital, Jackson, "Early laboratory manifestations of pulmonary tuberculosis."

One of the most pleasing features of the evening was a bounteous spread with plenty to eat.

A joint meeting of the Tangipahoa, St. Tammany and Livingston is proposed for our July Ponchatoula meeting.

W. T. Newman, M. D.,

Secretary.

ST. TAMMANY PARISH MEDICAL SOCIETY.

The St. Tammany Parish Medical Society met in the Community Room, Bank of Slidell, Slidell, La., on June 12, 1931, at 8:00 p. m., with the following members present: Dr. J. K. Griffith, President, Dr. J. R. Singleton, Dr. H. D. Bulloch, Dr. H. E. Gautreaux, and Dr. J. F. Polk, Secretary. The minutes of our last meeting were adopted as read. The Society was honored with the presence of Drs. Chas. J. Bloom and J. E. Strange from New Orleans. Dr. Bloom, by invitation, presented us with an address of his own choosing, "Appendicitis in Children." In his message the doctor went very minutely in detail as to signs and symptoms, including with it roentgen-ray and blood picture. Treatment consisted of the things not to do as well as what should be done. The Society is indeed very grateful to the doctor for

his message, which was very timely. The Society's meeting closed to meet in Covington, La., July 10.

Jno. K. Griffith, M. D. J. F. Polk, M. D.,
President. Secretary.

APPROACHING MEETINGS.

At the International Colonial Exposition, which will be held in Paris this coming summer, July 22-31 have been set aside by the authorities as Colonial Medical Days. During this period of time an attractive program will be presented for the purpose of showing what France has accomplished from the point of view of sanitation for her colonies and her possessions over sea. A distinguished list of French doctors will participate in this celebration.

THE AMERICAN COLLEGE OF PHYSICIANS.

The American College of Physicians will hold its Sixteenth Annual Clinical Session at San Francisco with headquarters at the Palace Hotel, April 4-8, 1932. Following the Clinical Session, a large percentage of the attendants will proceed to Los Angeles where a program principally of entertainment will be furnished April 9, 10 and 11.

Announcement of the dates is made particularly with a view not only of apprising physicians generally of the meeting, but also to prevent conflicting dates with other societies that are now arranging their 1932 meetings.

INTERNATIONAL CONGRESS OF COMPARATIVE PATHOLOGY.

The Second International Congress of Comparative Pathology will be held at the Colonial Exposition, Paris, October 14-18, 1931.

CANCER COMMISSION OF THE CALIFORNIA MEDICAL ASSOCIATION.

The Californian State Medical Association has appointed a Cancer Commission for the purpose of representing the Association in all phases of the organized fight upon the increasing menace of this disease. As its first objective, the Commission plans to review and to bring widely to the attention of the profession in the State the most modern methods of diagnosis and treatment, especially of early carcinoma. Subsequent efforts will be directed toward education of the lay public, as well as the establishing of specially equipped clinics. The Commission as organized has for its Chairman, Dr. Charles A. Dukes, Vice-Chairman, Dr. L. C. Kinney, and Secretary, Dr. A. R. Kilgore.

GIFT OF DR. EWING.

Dr. Fayette C. Ewing of Alexandria has presented to the Tulane University School of Medicine a magnificent collection of old prints on the

healing art. Dr. Ewing has been collecting these old prints for a great many years. The collection contains forty-three pictures and three interesting pieces of sculpture. The whole collection made a magnificent addition to the Historical Room of the Library of the Tulane Medical School, which Dr. Rudolph Matas was instrumental in founding and who has a tremendous interest in the progress of the room.

Dr. Ewing is a graduate of Jefferson Medical College of the class of 1884. He has been now for some years a member of the Rapides Parish Medical Society living in Alexandria.

HEALTH OF NEW ORLEANS.

The Division of Vital Statistics reported for the week ending May 30 that there were 127 deaths in the City of New Orleans, giving a rate of 14.2. Eighty-three of these deaths were in the white and 44 in the colored population. The infant mortality rate for this week was 18 for white and 81 for colored infants. The following week, June 6, showed a death rate of 17.2, as a result of 154 deaths in the City, 83 of whom were white and 71 colored. The very remarkable low infant mortality rate for white infants had jumped up to 74 and the negro rate to 114 in this particular week.

During the week ending June 13, there were 139 deaths in New Orleans, giving a death rate of 15.5. The infant mortality rate was 88, 74 in white children and 114 in the colored.

INFECTIOUS DISEASES IN LOUISIANA.

The Treasury Department of the United States Public Health Service, in collaboration with Dr. J. A. O'Hara, has published the following report on infectious diseases in Louisiana. For the week ending May 23, there were reported 63 cases of pneumonia, 35 of tuberculosis of the lung, 11 of influenza, 7 cases of typhoid fever, 38 of syphilis, and 13 of gonorrhea, and among the less frequent of important contagious diseases 12 cases of small pox, 19 of diphtheria, 2 of meningitis, and 21 of scarlet fever. Nine of these cases of small pox occurred in the City of New Orleans, and 18 of the cases of diphtheria. For the week ending May 30, pneumonia was again the leader in the reportable diseases, 73 cases occurring in the State in this particular week. There were also reported 37 cases of pellegra, 3 of syphilis, and 5 of gonorrhea. Nineteen cases of small pox were reported, 10 of these occurring in Bienville Parish. There were also reported 3 cases of undulant fever and 3 cases of poliomyelitis. For the week ending June 6, pneumonia had increased to 97 cases reported in this month. There were only 12 cases of influenza and the same number of cases of typhoid fever. Fifty-two cases of syphilis were reported and 28 of gonorrhea. The small

pox incidence in the State had increased, 27 cases being reported, 13 of which came from Bienville Parish and 5 from Orleans. There was only one case of meningitis reported this week, and one case of undulant fever. Forty-one cases of pellagra were reported this week, and for the week ending June 13, 69 cases of this extremely prevalent disease occurred in the State of Louisiana, leading all other reportable diseases. The pneumonia incidence had fallen to 26, but typhoid fever had increased to 17 cases and scarlet fever to 24, 15 of the cases coming from Orleans Parish. Of the 17 cases of small pox, Orleans and St. Johns Parishes each reported 5, the remaining cases being scattered all over the State. Two cases of meningitis and one of poliomyelitis were likewise reported this week.

SAMUEL M. LYONS, M. D.

The many friends of Dr. Samuel M. Lyons of Sulphur will be greatly distressed to hear of his death, which occurred on June 19 after a stroke of apoplexy two weeks previous. Dr. Lyons was one of the active members of the Louisiana State Medical Society. Not only was he interested in his profession, but he also took a very lively part in political and social life of his community. At various times he served as a member of the Police Jury, as a Tax Assessor, and as Coroner. At the time of his death he was a member of the Louisiana House of Representatives.

Of Dr. Lyons' four sons, three of them are physicians. Two of these three, Dr. Shirley C. Lyons and Dr. Kyle M. Lyons, are practicing in New Orleans.

ROBERT G. HAWKINS, M. D.

The St. Landry Parish Medical Society informs us of the death of Dr. Robert Garnett Hawkins, of Palmetto, St. Landry Parish, La. Dr. Hawkins was regarded as a leading general practitioner in his section, and was also highly esteemed as one who exerted every effort towards the civic betterment of his community. For many years he was a valued member of the St. Landry Parish Medical Society. The doctor was born at Waxia La., on October 24, 1863, and died at Opelousas, La., on June 17, 1931. He was a member of Humble Cottage Lodge, No. 19, F. & A. M., of Opelousas, La., and also a member of Palmetto Camp, Woodmen of the World. Surviving the doctor are his wife and the following children: Miles Hawkins, Mrs. J. A. Niel, Mrs. A. J. Garon, Floyd Hawkins, Aubrey Hawkins, and Mrs. J. A. Roulet.

WOMAN'S AUXILIARY NOTES.

The regular meeting of the Woman's Auxiliary to the Ouchita Parish Medical Society was held Wednesday morning, at the residence of Mrs. B. M. McKoin, Mrs. J. B. Vaughan, president, presiding. Twenty members were present.

Reports from the State Convention, held recently in New Orleans, were made by Mrs. J. P. Brown and Mrs. P. L. Perot.

Plans were perfected at this time for a tea to be given Friday afternoon at the residence of Mrs. McKoin, honoring the graduating class of the St. Francis Sanitarium School for Nurses.

Mrs. E. R. Yancey,
Publicity Secretary.

The following annual report of The Woman's Auxiliary to the Orleans Parish Medical Society, was thought of such interest that it is published intact. This was written and presented by their President, Mrs. J. Ambrose Storck.

ANNUAL REPORT OF THE WOMAN'S AUXILIARY TO THE ORLEANS PARISH MEDICAL SOCIETY.

To the officers and members of the Auxiliary, I desire herewith to submit my report for the season 1930 to 1931, October to May, inclusive. The second year of the Auxiliary has been marked by steady growth and definite accomplishment. The organization now has two hundred and sixty-seven members. The attendance at each of eight regular meetings has been a large majority of the total number, showing that keen interest has been maintained. Work has progressed along the three lines of endeavor in our general program—social, philanthropic and educational. The several chairmen, Mrs. John H. Musser of the social group; Mrs. W. R. Buffington of the philanthropic group; and Mrs. Ludo von Meysenbug of the educational group have all functioned with interest and enthusiasm. The entertainment committee, composed of Mrs. Homer Dupuy and Mrs. Thomas Walshe secured places of meeting, and provided vocal and instrumental programs by talented local artists. The spacious homes opened to the auxiliary were those of Mrs. John Smythe, Mrs. John T. Nix, Mrs. Isadore Cohn and Mrs. George Dempsey, where the generous hospitality of the hostess and her co-hostesses infused a spirit of comradeship and good will throughout the gathering. First and last meetings at the Orleans Club; another meeting here with Mrs. Arthur Whitmire, hostess, and a large group of the younger element as co-hostesses; and the April meeting and reception at the New Orleans Country Club, with Mrs. Joseph Hume, hostesses, and members of the entertain-

ment committee as joint hostesses, sums up the places of our assemblages.

In addition to its regular work along social lines, the auxiliary has helped its affiliated organization on two occasions—the entertainment incident to the installation of new officers of the Parish Society, January 5; and entertainment of the wives of the doctors attending the Louisiana State Medical Convention, April 13, 14, and 15. This was the first opportunity afforded us for such service in our brief existence, and we were anxious to show our willingness and our ability. Mrs. W. H. Seeman was in charge of entertainment for the meeting in January. Wives of the doctors attended in greater numbers than at any previous installation; and, in all respects, the work of Mrs. Seeman and her committee was successful. Mrs. Joseph H. Hume was chairman of the woman's entertainment committee for the State Convention. Thorough organization, careful working out of detail, and business methods in the handling of the generous allowance made by the Parish Society, resulted in a delightful round of entertainments. There was a surplus of funds which was returned to the Society. Mrs. Hume has left a record of her plans and procedures which will be of help to those who may have charge of such work in the future.

The telephone committee under Mrs. Roy B. Harrison has done yeoman's service with a gracious ease more apparent than real, because it was done "con amore." The membership committee under Mrs. S. M. Blackshear has continued to work for new members with unabated zeal. Mrs. Chaille Jamison, as chairman of the courtesy committee, has found both the usual and unusual means of showing kindness in times of sickness and bereavement as well as on happy occasions. The educational group, under Mrs. Ludo von Meysenbug, has centered its interest in placing Hygeia in the schools. Mrs. Buffington has developed the philanthropic work through a very active committee to a point where decided progress has been made—collection of good used clothing for boys and girls of the vocational guidance department of the New Orleans public schools; donation of money for luncheons for needy students; and collection of medicines from doctor's offices for use in child welfare clinics make a sum total of really worth while work.

The contact committee between our auxiliary and the Orleans Parish Medical Society is composed of Dr. Edward S. Hatch, chairman, and Doctors Randolph Lyons and Ludo von Meysenbug. This is the committee to which the auxiliary refers its problems touching the two organizations, and whose advice is requested before entering new projects. Mrs. Seward Wills has been prompt and explicit throughout the year in handling publicity. Mrs. Rogers Brewster has shown ready willingness to write graceful and tactful letters in her capacity as corresponding secretary. Mrs. A. L. Levin, as recording secretary, has shown her usual devotion to duty. With so little red tape about the running of the auxiliary, Mrs. Arthur Weber has had little occasion to use her able judgment in parliamentary ruling. Mrs. Randolph Lyons has officiated as treasurer with painstaking ability. In sending the pro rata for State and National Auxiliary dues, she appended the names and addresses of every member who had paid into our organization. This is stated merely as an indication of her close attention to details. The lecture committee, consisting of Mrs. A. J. Babin, Mrs. W. P. Gardiner and Mrs. J. A. Storck, were successful in securing a series of informative and delightful biographical lectures delivered by members of our distinguished medical fraternity. Their ready response to our request has been a most friendly gesture on the part of our affiliated organization, and makes us feel that we not only belong to them but that they belong to us. Our distinguished speakers were Dr. Maud Loeber on "Paracelsus"; Dr. Elizabeth Bass on "Florence Nightingale"; Dr. Herman B. Gessner on "Hippocrates"; and Dr. Philip H. Jones on "Galen".

In closing my report, I wish to say as I said in my previous annual report, that the Women's Auxiliary to the Orleans Parish Medical Society has been well officered. I desire to thank each individual who has co-operated so cheerfully and ably in the aims and accomplishments of the auxiliary. It has been a rare privilege and a high honor to work with, and for, and through such a splendid group of women. I wish to thank the entire auxiliary with its wonderful personnel for its sustained interest and enthusiasm. The auxiliary is rich in available material for any undertaking which may be attempted. With the continued growth of the auxiliary, with the maturity which comes with time, and with the broadening of its

scope under new leaderships, I feel that the organization is destined for wide usefulness in the community at large, and that the members are most fortunate in their individual relationships to each other. I know whereof I speak; for personally, I have been the recipient of so much friendliness and so much spiritual comfort in a time of great mental and emotional stress that I do not have words to express my thanks. I do not say that it was not difficult to go on during my husband's illness, but it would have been impossible without your sympathy and support.

Last year, in my final report, I said that when you have told somebody you love them, there is nothing more to say. I feel as I did then—bound to you by love and friendship. But I wish to add just this. In the community of interests which draws you closely together; in the good feeling which is apparent on all sides; in the kindness which finds expression in so many ways, I can speak more broadly than before and say, with confidence, that ye are carrying out the words of the Master: "Love one another".

Mrs. Wilkes Knolle, Mrs. Donovan Browne and Mrs. W. R. Buffington represented the Woman's Auxiliary of the Orleans Parish Medical Society at the American Medical Association held in Philadelphia the early part of June. We undoubtedly will have excellent reports from them of the proceedings.

During the month of May, the American Medical Library Association was entertained by the Assistant Librarian of the Orleans Parish Medical Society, Miss Mary Marshall, at a tea at the Petit Salon. Several co-hostesses assisted Miss Marshall.

The Orleans Parish Medical Society has been approached by the Registered Nurses Association to join in an educational program to introduce "Part time nursing" into the various organizations and homes. At a business meeting earlier in the month, this matter was discussed. It was decided that at this particular time the Orleans Parish Medical Society was not in a position to help, even so worthy a cause as "Part time nursing".

Marguerite H. Musser,
State Publicity Chairman.

THE COMMONWEALTH FUND AND TULANE UNIVERSITY.

Dean Bass, of the School of Medicine, Tulane University, announced, just as we were going to press, that the Commonwealth Fund was prepared to give five scholarships to undergraduate students of Mississippi in Tulane University, these scholarships ultimately to amount to twenty. As further aid in the promotion of rural health work in the State of Mississippi, fifteen fellowships are to be granted to physicians of Mississippi for work in the Graduate School of Tulane. In order to improve instructions in the methods of prevention of disease, Tulane will be granted yearly, over a period of years, the sum of \$25,000.

CORRESPONDENCE.

June 15, 1931.

PALMAM QUI MERUIT FERAT.

To the Editor:

In reading the interesting paper by Dr. L. Levy on Autotransfusion and the animated discussion that followed, in the last issue of the Journal (June, 1931), I note that credit for the origin of this procedure is given by the Author and by other speakers, to Dr. Johann Thies, of Leipzig. This distinguished surgeon published his experience in 1914 when he applied this method for the relief of exsanguinated patients suffering from ruptured ectopic pregnancy. Thies no doubt believed that the method had originated with him, and practically all the operators who have followed him share in this belief. Without in the least detracting from the undoubted merit of his enterprise or doubting that Thies was the first to apply the principle of autotransfusion to cases of ectopic pregnancy or to hemorrhages in the abdominal cavity, it is only fair to recall that as far as the application of the principle of self blood replacement, upon which autotransfusion is based, he was clearly antedated by Professor Halsted of Baltimore, who reported his experience with autotransfusion or "Blood Refusion" as he preferred to call it, to the New York Surgical Society on November 13, 1883—thus anticipating the German surgeon by thirty-one years; and, as far as the mere suggestion of the principle is concerned, Thies was preceded by one of his own countrymen—Volkman, of Halle, in 1865—fifty-one years before Thies' publication.

Dr. Edmond Souchon, in opening the discussion of Dr. Levy's paper, took up in a very praiseworthy way, the historical phases of the subject and traced the concept of autotransfusion to William Highmore, of Sherborne, Eng., who in 1874 suggested and recommended that the shed blood in postpartum hemorrhage should be collected and reinjected into the depleted mother after it had been defibrinated and warmed, using "a Higginson syringe and transfusion pipe for the purpose."

But Dr. Halsted in his very thorough paper of 1883 on "Blood refusion in the treatment of carbonic oxide poisoning," pursued his investigations much further and found, as previously stated, that "Volkmann, in 1868, when discussing disarticulation of the hip, suggested the feasibility of collecting the blood lost in this operation and returning it to the loser through the divided femoral vein. Esmarch, in 1873, endeavored to act in accordance with Volkmann's suggestion, but his patient died while preparations were being made for the reinfusion. Hueter (1874), in frost gangrene of both feet transfused 350 c.c. of the patient's own blood, defibrinated, into the left posterior tibial artery, and believed he thereby preserved a portion of the frozen parts. "The right foot, untransfused, underwent an extensive forfeiture." Dr. Halsted quotes Highmore as the last contributor to the history of autotransfusion in 1874, before he (Halsted) had successfully applied the principle of Refusion in 1883.

Dr. Souchon in his discussion refers to A. G. Miller, of Edinburgh, as the first to actually apply Highmore's suggestion in 1885, in a case of amputation of the hip, and he also refers to Dr. Duncan as advocating and practicing the method of autotransfusion in 1865. This date evidently is a misquotation through inadvertence, as the Duncan referred to is J. Duncan who published a paper on "Re-infusion of Blood in Primary and other Amputations," *Brit. Med. Jnl.* 1:192, 1886. It is evident that neither Miller or Duncan had any knowledge of Halsted's previous publication in 1883, in which the earlier observations of Volkmann, Esmarch and Hueter are clearly stated.

My purpose in this communication is chiefly to call attention to the fact that Dr. Halsted was the first to apply the principle of reinfusion or autotransfusion in America nearly fifty years ago,

and that he was the first, in surgical history, to utilize this principle in the treatment of illuminating gas poisoning—one of the most frequent and fatal forms of accidental and suicidal intoxication.

In the discussion of a valuable paper on "Refusion of Blood in Hemorrhage," read by Dr. Edward J. Klopp, of Philadelphia, at a meeting of the American Surgical Association, May 2, 1922 (see *Transactions* Vol. 40, 1922), in which this author had attributed the origin of autotransfusion to Johann Thies, Dr. Halstead, who was present reminded the Society that this procedure had been the subject of his first published contribution to medical literature, nearly forty years before Dr. Klopp had resurrected the subject at this meeting. Going back to his original paper, Dr. Halsted stated that while surgeon in charge of the old Chambers Street Hospital, a relief branch of the New York Hospital, in the early 80's, "we saw many cases of gas poisoning, most of them contributed by the night boats plying between New York and ports along Long Island Sound. In a number of instances, I practiced what I termed refusion. The patients were freely bled and their blood collected, defibrinated and returned to them by way of the radial artery. In the process of defibrination the blood was sufficiently aerated to deprive it of its toxic properties. In this way not only the lost blood volume was replaced, but the oxygen carrying function of the blood restored. The results obtained by this procedure were remarkable. Patients who were comatose would, after the bleeding, become conscious and even quite rational, and upon the reinfusion, the detoxicated and oxygenated blood would recover them still further and permanently."

The technic of reinfusion has been enormously simplified in recent years, by substituting the intravenous for the intraarterial injection of citrated blood and by the use of the apparatus originally devised by the late lamented Dr. Kells, of this city, and now universally used for the aspiration of blood and other fluids collected in the body cavities or in the operative field, as is done systematically by Cushing, De Martel and other brain surgeons. In this way, practically all the blood can be aspirated and held in an aseptic container where it can be citrated and filtered. The appar-

ent simplicity of the method accounts for the enthusiasm with which the principle of reinfusion has been recently revived and is finding many unthought of applications—the most important of these having been well brought out in the discussion of Dr. Levy's paper by Dr. Souchon, and his reference to the advantages and disadvantages of the citrated as compared with whole blood, is also timely and important.

There is much that can be said apart from the technic, in regard to the indications and contra-indications of autotransfusion. It is not always so benign in its effects as its modern simplicity and published reports suggest. There is danger in the abuse of this auto-blood therapy. For it must be admitted that autotransfusion is an unnecessary procedure in the average case of ruptured ectopic pregnancy. Klopp, in reporting eleven cases of re-infusion for pelvic hemorrhage, in the paper referred to (1922), also reported 107 consecutive cases of ruptured ectopic pregnancies treated in the gynecological department of the Jefferson Hospital, Philadelphia, with 8 deaths from all causes. He quoted Arnim, of Kiel, who reported (1919) 351 cases of extrauterine gravidity operated on during the years 1910-1919, without re-fusion, and that of these, 8 died. It is not clear, however, that all these were ruptured cases. Many more statistics have accumulated since 1922, in which even a lower mortality is exhibited in consequence of earlier diagnoses and earlier operations. In the majority of these cases, the patient will rally when the hemorrhage is arrested and the blood volume is restored by an intermittent or continuous isotonic intravenous salt or glucose solution, provided the abdomen is quickly closed, leaving the extravasated blood in the cavity to be absorbed. This is equivalent to an intraperitoneal autotransfusion which only differs from the intravenous injection of blood in the relatively slow rate of absorption.

The inability to sterilize the blood collected from sources of dubious asepticity in the abdomen particularly, will prevent its application in many operations in which the blood could be most profitably utilized, but in which its probable contamination prohibits its injection into the circulation, as in bleeding gun shot wounds of the abdomen, placenta previa, and post partum hemorrhage.

While complimenting Dr. Levy and Dr. Sims, on the happy results of their first clinical application of the method of autotransfusion in this city, I trust the future contributors to this subject, here and elsewhere, will not forget that credit for the first application of autotransfusion in America is due to an American surgeon—Halsted—and not to a belated inspiration imported from foreign sources.

Rudolph Matas, M. D.

Note: The reader interested in the early history of this subject will find all the necessary data in Dr. Halsted's original paper on "Blood Refusion in the Treatment of Carbonic Oxide Poisoning" in Vol. 1 of the two volume memorial edition of the "Collected Papers and Addresses of William Stewart Halsted," edited by Dr. W. C. Burkett and issued by the Johns Hopkins Press in 1924.

May 27, 1931.

Dear Sir:

I notice in your Journal of May, page 833, an article from Dr. W. H. Schudder of Mayersville promising an article from me on the treatment of malarial hematuria. I beg to state as I never write articles for medical journals or medical societies will enclose you an announcement of my fiftieth graduation anniversary, showing some of the work I have done.

Yours truly,

Dr. T. A. Heath,
Shiloh Box,
Filter, Miss.

(Enclosure)

Fifty years ago this month I graduated at the Hospital College of Medicine, Louisville, Kentucky, when I began the practice of medicine in this malarial delta. I have treated many of the most malignant forms of malarial hematuria and never lost but one—never had but three to have a return of the disease, which I checked very nicely. I have treated other forms of malaria successfully, many not having a return of the disease for years. I have relieved many cases of malaria from twenty-four to forty-eight hours with only a few doses of my malarial powders.

T. A. Heath, M. D.

MISSISSIPPI STATE MEDICAL ASSOCIATION NEWS

L. S. Lippincott, Editor

Jacob S. Ullman, Associate Editor

D. W. Jones, Associate Editor

SHARKEY COUNTY.

Dr. and Mrs. H. S. Goodman, Cary, attended the meeting of the Mississippi State Medical Association in Jackson.

Dr. and Mrs. M. J. Few, Rolling Fork, attended the State Medical meeting in Jackson.

Dr. and Mrs. W. C. Pool, Cary, attended the State Medical Meeting in Jackson. Mrs. Pool attended the meetings of the Woman's Auxiliary.

Miss Katie Martin, daughter of the Late Dr. L. E. Martin, Anguilla, has gone to California, where she will marry Mr. Allen Selby.

W. C. POOL, County Editor.

ATTALA COUNTY.

We are glad to report one of our physicians, Dr. J. W. Bailey, very much improved from a serious operation he underwent at the Baptist Hospital, Jackson. He has returned to his home at Kosciusko, and we hope he will have a speedy recovery.

C. A. PENDER, County Editor.

ADAMS COUNTY.

A number of very lovely and informal parties have been given for the graduating nurses of the Natchez Sanatorium. Among the entertainments was that given by the junior nurses to the seniors, entertaining at the Nurses' Home in Franklin Street. Throughout the lower floor, beautiful flowers were arranged, adding brightness to the setting. Refreshments were served.

The graduation exercises for the nurses of the Natchez Sanatorium were held at five o'clock in the afternoon on June 2, at the Rendezvous. A social hour and dancing followed the exercises.

Mr. George Dicks, son of Dr. J. W. D. Dicks, returned to Natchez June 6, from Old Hickory, Tennessee, where he had been visiting in the home of his brother-in-law and sister, Mr. and Mrs. Lyman Darling.

Mrs. Nita Beer returned recently from a visit in New Orleans and is again a guest in the home of her brother-in-law and sister, Dr. and Mrs. Philip Beekman.

Mrs. George Tiche is again at home with her son-in-law and daughter, Dr. and Mrs. Marcus Beekman, after a visit of several months with another daughter, Mrs. W. D. Hobgood and Mr. Hobgood at their home in Traylake. Mrs. Tiche

will remain in Natchez for the greater part of the summer.

Miss Mary Tiche and Miss Lynda Bray, of Athens, Georgia, were recent guests to Miss Tiche's brother-in-law and sister, Dr. and Mrs. Marcus Beekman.

Dr. and Mrs. Marcus Beekman entertained most beautifully at a recent supper party, featuring Mrs. C. L. Braman and her daughter, Miss Mary Braman, of Providence, Rhode Island, house guests of their relatives, Mr. and Mrs. S. Beekman Laub.

Dr. J. S. Ullman has the sincere sympathy of his many friends in the loss of his brother, Aubrey M. Ullman, who died June 4, in Los Angeles, California.

A very interesting report of the meeting of the Mississippi State Medical Association in Jackson by Dr. E. E. Benoist was the feature of a recent regular meeting of the Medical Society of Natchez. Dr. Benoist discussed the various papers which were presented at the State Meeting. The talk was thoroughly enjoyed by everyone and was followed by a round table discussion.

At the regular meeting of the board of trustees of the Natchez Hospital on June 4, Dr. P. H. Rayburn was elected house surgeon. The staff of the hospital as now constituted consists of: Dr. J. A. Rayburn, superintendent; Dr. G. H. Butler, assistant superintendent; Dr. P. H. Rayburn, house surgeon; W. D. Deterly, Secretary.

Trustees attending the meeting were Mrs. Alma Spaulding, Fayette; Mrs. W. F. Tucker, Woodville; J. J. Whittington, Bude; J. E. Flowers, Wilkinson; Dr. E. E. Benoist, Natchez; Mrs. R. T. Clark, Natchez; Mrs. Katie Ogden, Natchez; John R. Junkin, Natchez; and W. A. Lowry, Natchez.

L. WALLIN, County Editor.

MADISON COUNTY.

I haven't much to report from Madison County for this month but will try to find some items for you as the months go by.

Among the Madison County doctors attending the Mississippi State Medical Association at Jackson were Drs. Howell, Smith, and Durfey of Canton.

Dr. John M. Melvin and Mrs. Melvin are in Baltimore where Mrs. Melvin is under treatment.

Miss Mamie Davis, Superintendent of the King's Daughters' Hospital, Canton, spent several days at home recently.

F. P. DURFEY.

PONTOTOC COUNTY.

At this time (June 8) all of Pontotoc County is looking a week ahead to the meeting of the North East Mississippi Thirteen Counties Medical Society which meets at Houlka in Chickasaw County. The program is very interesting and we wish all our fellows in the State could attend. We are expecting one hundred percent attendance from Pontotoc County.

Dr. J. H. Windham of Ecu, one of our ablest doctors, enjoys himself and relaxes occasionally by fishing. During the leisure days one may see him with his cane and can of bait. After the patient is cared for he sometimes stops at a good place and tries his hand at fishing.

Dr. R. P. Donaldson, Pontotoc, is our county health officer. Besides his private practice which keeps him pretty busy, he also looks after the health of the county in general. Though we have a splendid health officer we seldom have to use him as we have very few epidemics. Small pox and such stay away from us pretty well.

Dr. J. D. Neel and Dr. E. B. Burns at Ecu in the northern part of the county are partners. They are very much interested in intravenous therapy and practice it more or less every day as the occasion permits.

Dr. Z. A. Dorsey, Troy, in the south eastern part of the county, will present an interesting paper on "Focal Infection" at the meeting next week at Houlka.

Dr. O. F. Carr and Dr. Dexter Dunavant, both of Pontotoc, are busy physicians. Dr. Dunavant helped to represent Pontotoc county at the recent State medical meeting at Jackson.

Yours for a bigger and better Mississippi State Medical Society.

ELIAM B. BURNS, County Editor.

LINCOLN COUNTY.

The Tri-County Medical Society met June 9, at 12 noon, in regular quarterly session at the Inez Hotel, Brookhaven, with a good attendance. After dinner in the cafe, the business and scientific programs were entered into.

Guest of honor was President John C. Culley, Oxford, this being his first official visit since his elevation to his merited place in the State Medical Association. He addressed the society on the

needs of better and closer organization in the profession and spoke of the community hospital needs and the medical department of the University of Mississippi.

Dr. Culley enters into his work with zeal and confidence in his organization, committees, and friends over the State. We predict a good year's history in Mississippi medicine under his guidance. He was called back by wire to his home thereby cutting short his too brief visit with this society.

Dr. W. E. Clark, Assistant Superintendent of the Mississippi State Hospital, read an interesting paper on, "Psychoneuroses Following Influenza." This paper brought out some very interesting things for the general practitioner and was discussed by many of the members and visitors. Dr. Clark has had a very rich experience in this line of practice and his paper was the more appreciated.

Dr. John Bullock, Jackson, read a paper on, "Cause and Treatment of Ileocolitis," which evoked much interest, and showed the scientific developments on this subject.

The Society went on record as favoring the community hospital idea as promulgated at the recent meeting of the Mississippi State Medical Association meeting and gave President Culley a vote of thanks for his visit and confidence in his work.

The Tri-County Society will meet next in Monticello, "On the Pearl," September 8, as guest of the Lawrence County physicians, who are princes as good fellows and entertainers.

This society mourns with her sister society in the loss of our good friend and charter member of the old Tri-County Medical Society, the beloved Dr. L. D. Dickerson of McComb. In his passing not only South Mississippi but the entire state has lost a good citizen and medical man. Suitable resolutions were passed on his demise.

Dr. John T. Butler, without doubt the most active of the older practitioners of the State, is a "guest" in the King's Daughters' Hospital, Brookhaven, for a few days, suffering from herpes zoster. His loyal clientele and long list of medical friends wish for him a speedy recovery. Dr. Butler will celebrate the 78th milestone in his history on June 19th, and the 54th in very active medical work, since he still makes night calls regularly.

The staff of the King's Daughters' Hospital met in regular monthly session, Tuesday evening, with discussions of interesting local problems and the annual re-organization and election of officers as

follows: Dr. O. N. Arrington, President; Dr. H. R. Fairfax, Vice-President; Dr. J. R. Markette, Secretary.

Miss Merchant of Alabama is now the very efficient technician of the King's Daughters' Hospital and has already won her way into the good graces of the board and staff.

W. H. FRIZELL, County Editor.

PIKE COUNTY MEDICAL SOCIETY.

DR. L. D. DICKERSON.

McComb and Pike County suffered a vital blow in the death of Dr. L. D. Dickerson on June 4, from complications following appendectomy.

Dr. Dickerson had been in McComb for about 36 years and was held in the highest regard as a physician and surgeon and as a citizen. He was always interested in the betterment of the practice of medicine, so made various trips to the medical centers that he might be better equipped to render his patients better care. He was a strong believer in organized medicine and he lived to see the Commonwealth Fund select Pike County as one of the two counties in Mississippi in which to place a unit. Dr. Dickerson was especially interested in the up-building of the little city that he had seen grow from a village and to this he gave unsparingly of his time and money and McComb is better off by his having lived here.

Louis Dent Dickerson was born in Simpson County, September 11, 1869, the son of Judge John and Jane (Mullen) Dickerson. He was graduated from the Bellevue Hospital Medical College in 1894. He was a member of the American Medical Association, Mississippi State Medical Association, the Tri-County and Pike County Medical Societies, and was always active in the State and local societies. His religious faith was that of the Baptist church, of which he was a deacon. On October 23, 1895, he was married to Miss Ada M. Williams, the daughter of John H. and Sarah (Brinson) Williams of Lawrence County. To this union there were born two children, who with their mother survive the doctor.

Dr. F. J. Underwood was in McComb, May 29, attending to the scholarships for doctors that are to be given by the Commonwealth Fund.

Owing to the fact that Dr. Dickerson was dying on our meeting day, no meeting was held.

L. J. RUTLEDGE, Secretary.

SOUTH MISSISSIPPI MEDICAL SOCIETY.

A regular meeting of the South Mississippi Medical Society was held at the Pinehurst Hotel, Laurel, on June 11, beginning at 3 p. m.

The program included:

1. Cystic Ovaries and Other Tumors of the Uterine Adnexa Complicating Pregnancy.—Dr. J. S. Gatlin, Laurel.
2. A Plea for a More Earnest Effort in Our Examinations and Diagnosis by Utilizing Our More Common Laboratory Methods.—Dr. J. K. Oates, Laurel.
3. The Treatment of Empyema by Aspiration and Air Replacement.—Dr. R. R. Roberts, New Orleans, Louisiana.
4. Osteomyelitis (Illustrated with Lantern Slides).—Dr. Isidore Cohn, New Orleans, Louisiana.
5. Address by President of the Mississippi State Medical Association.—Dr. John C. Culley, Oxford.

After a business session, dinner was served at the Pinehurst Hotel.

WINSTON COUNTY.

The doctors of the Winston County Medical Fraternity with their wives, enjoyed a fish fry, May 12, the day was extremely pleasant and nearly all of the doctors were there.

Dr. T. C. Suttle, who came back from Bison, North Dakota, some months back, united with the Medical Fraternity at the last meeting.

We note with interest the recent marriage of Mr. Everett Watkins to Miss Hazel Kilpatrick. Mr. Watkins is the son of Dr. H. B. Watkins and the bride is the daughter of Dr. T. F. Kilpatrick, all of Noxapater. We congratulate them.

M. L. MONTGOMERY, County Editor.

BOLIVAR COUNTY.

The Delta Medical Society met at Cleveland, on April 8, with 125 doctors in attendance. The Society went on record as favoring the community hospital in preference to the present hospital system. After the afternoon session, which was devoted to an interesting and instructive program, all enjoyed the bountiful banquet given by the doctors of Bolivar County.

Dr. J. D. Simmons, Gunnison, reported a case of undulant fever and stated that he was using the vaccine treatment with hopes of an early recovery of the patient.

Under the efficient management of Mrs. W. A. Shelby, the King's Daughters' Hospital of Rose-dale, has been able to continue its great service to the community.

Mrs. Shelby is serving without pay while our people are staggering through this financial crisis.

In my drive for new members throughout the past year I feel that many friends stood by me most loyally and I thank them from the bottom of my heart.

As in the past 23 years I have worked for organized medicine and medical ethics, just so will I be laboring in the future.

C. W. PATTERSON, County Editor.

NORTHEAST MISSISSIPPI THIRTEEN COUNTY MEDICAL SOCIETY.

Following is the announcement of the last regular meeting of the Northeast Mississippi Thirteen County Medical Society:

HOULKA DAY

You are cordially invited to attend
the

Regular Quarterly Meeting
of the

Northeast Mississippi 13 County
Medical Society

to be held in the

First Baptist Church at Houlika

Tuesday, June 16th, 1 p. m.

Houlka is in Chickasaw County, ten miles from Houston and last, but not least, is the home of our beloved and honored member, Dr. W. C. Walker. If you have any doubts about the greatness of Houlka, attend this meeting. The North Mississippi Medical Society, will be our guests and share in the program.

Please be prompt.

Bring this program with you.

C. E. Boyd, President

J. M. Acker, Jr., Secretary.

PROGRAM.

1. Meeting called to order by Dr. C. E. Boyd, President.

2. Invocation.—Rev. S. P. Andrews.

3. Reading and adoption of minutes of the last meeting.

4. Focal Infection.—Dr. Z. A. Dorsey.

Discussion opened by Drs. Pegram and Guinn.

5. Report of Allergic Cases.—Dr. A. H. Little, Oxford.

Discussion general.

6. Dystocia With Special Reference to the Occiput Posterior.—Dr. Percy Toombs, Memphis, Tennessee.

Discussion general.

7. Ureteral Strictures—Symptoms, Diagnosis and Treatment.—Dr. L. C. Feemster, Jr.

Discussion opened by Drs. Ewing and Philpot.

8. Differential Diagnosis of Heart Murmurs in Children.—Dr. R. E. Priest.

Discussion opened by Drs. Reed and Adams.

9. Business session.

Entertainment.

6 p. m. Picnic Dinner.

Address of Welcome.—Miss Moss Davis.

Response.—Mr. I. B. Tigrett, President G. M. & N. R. R.

MONROE COUNTY.

Just a month ago, I wrote you that I was on my toes ready to start to Jackson to the meeting of the Association. Well, I went and I am more than glad that I did, for the memory of the brief association with so many of my friends lingers as a benediction. I would not have missed the warm handclasp of my good friend, Louis Dickerson, for many times the cost of the trip. How glad I am that I did not, then, know that it was to be the last time I should see him. Yet I think it might have been good to tell him I loved him. I knew Louis Dickerson—I have seen him tested, and he proved himself to be a man (what more need be said?). "When shall we see his like again?"

In my opinion the meeting was a success in all respects. Though Dr. Howard labored under physical handicap, he did not fail to live up to his standard—indeed, "Richard was himself again."

The nominating committee honored the association when it presented the three names it did from which to choose a president-elect. A mistake could not have been made no matter which had been chosen. Although the youngest of the three was drafted for two years of hard work, I am sure we will get honest, capable and satisfactory service. Dr. Acker (Jamie, as his friends love to call him), is a worker for the cause. He has been secretary of his society for several years and though he succeeded Dr. Underwood, he has made good to the fullest. We appreciate him and we stand by and for him. If all of the member-

ship will help him, I know that his work will bear much good fruit.

One week from today the greatest medical meeting of all time, so far as Mississippi is concerned, will be held at Houlka. The Thirteen Counties will have the North Mississippi Medical Society as guest then and there. More correctly speaking, Drs. Walker and Hood will have the members of these two societies—nineteen counties—as their guests. What a gathering that will be! In my next I hope to be able to tell you something of this meeting.

No news—health good—times hard—weather fine—fishing fair.

G. S. BRYAN, County Editor.

It is with much regret that we learn that Dr. W. G. Gill, Newton, Councilor for the Sixth District of the Mississippi State Medical Association, has been confined to his home and hospital for the past three months, suffering with undulant or Malta fever.

TISHOMINGO COUNTY.

Dr. D. D. Johnson, Belmont, was a patient for a few days of the last week in May at a hospital in Memphis, where he underwent a submucous resection of his nasal septum.

KENNETH P. McCRAE, County Editor.

WEBSTER COUNTY

We have twelve physicians in Webster County, most of them in the evening of their professional life, but since preventive medicine rather than curative medicine is making progress, we have about worked ourselves out of a job.

We still have plenty of automobile accidents and midwives are very scarce, so you can readily see we are still keeping on in Webster County.

W. H. CURRY, County Editor.

PONTOTOC COUNTY.

News are very scarce here. Dr. Robert Going, who was located in Pontotoc County, Houlka, R. F. D., has recently moved to Calhoun County, Calhoun City.

R. P. DONALDSON, County Editor.

PRENTISS COUNTY.

Dr. and Mrs. W. H. Sutherland visited their son, who is completing his third year in medicine, at Louisville, Kentucky, recently.

Dr. and Mrs. W. H. Anderson attended the State Medical Meeting at Jackson in May.

Dr. J. C. Vandiver, Baldwyn, has recently returned home from the Northeast Mississippi Hospital where he underwent a gallbladder operation several weeks ago. Dr. Vandiver is convalescing slowly but nicely.

Dr. Otis S. Warr, Memphis, Tennessee, was in Booneville recently on a professional visit.

Dr. William M. Adams has recently returned from New Orleans, where he has been taking post-graduate work.

ROBERT B. CUNNINGHAM, County Editor.

YAZOO COUNTY.

Yazoo doctors are rather quiet. You know we did not raise much corn last year so look out when the new crop comes in.

The following Doctors attended the State Medical Association meeting in Jackson recently: Dr. Joe Roberts, Thornton; Drs. John Darrington, Gilruth Darrington, O. H. Swayze, Carl Day, J. T. Rainer, W. D. McCalip, H. L. McCalip, all of Yazoo City, I believe were all.

Dr. S. H. Woods, Benton, left recently for Panama where he has been assigned to duty in government medical work. Mrs. Woods and their children will leave later to join Dr. Woods in their new home.

Will try to do better next time.

C. M. COKER, County Editor.

DEATHS OF MISSISSIPPI DOCTORS.

Robert H. Stewart, Poplarville; died following operation for mastoid and sinus trouble; March 16, 1931, at New Orleans, Louisiana. Born Poplarville, May 6, 1885.

William Henry Whitaker, Grenada; chronic nephritis, cerebroembolus; at Granada, March 19, 1931. Born Mississippi, 1860.

J. A. Ashford, Bolton; diabetes mellitus; senility; March 26, 1931, at Bolton. Born Chester, South Carolina, July 4, 1852.

G. M. Westmoreland, Batesville; April, 1931. Born Spartanburg County, South Carolina, April 20, 1853.

G. C. Stone, Saltillo; at Saltillo, April 7, 1931. Born at Tremont, September 12, 1879.

W. S. Weissinger, Hernando; chronic myocarditis; at DeSoto County, April 15, 1931. Born Augusta, Georgia, 1848.

Samuel M. Jordan, Georgetown; Gangrene; April 19, 1931, at Georgetown. Born Tennessee, 1848.

George David Mason, Lumberton; pneumonia followed by encephalitis; April 26, 1931, at Lumberton. Born July 30, 1887, Isney, Alabama.

J. B. Sims; Aberdeen; apoplexy; Aberdeen, May 10, 1931. Born Aberdeen, February 19, 1861.

Joseph M. Catchings, Hazlehurst, heart attack; at Hazelhurst, May 18, 1931. Born at Georgetown, March 20, 1857.

E. G. Hamilton, Greenwood. Born at Abingdon, Virginia, November 20, 1881.

Kossuth R. Cammack, Chicora. Born America, 1888.

HOLMES COUNTY.

The Holmes County Community Hospital at Lexington, the first county hospital in the State by the way, opened Monday, May 25. We now have eleven patients, ten of them operative. This hospital is not fully complete as yet but we are working.

The Winona District Medical Society will meet in Lexington, July 6. We are going to have lunch, music, etc., and after the program, the new hospital will be inspected.

The hospital has a capacity of 35 beds, equipped throughout with the most modern equipment that could be secured, at a cost of about \$65,000.

We understand Dr. R. C. Elmore of Durant has discovered an absolutely infallible method for reducing his golf score.

ROBERT M. STEPHENSON.

TREASURER.

Please announce in the New Orleans Medical and Surgical Journal that Treasurer I. W. Cooper of Meridian has resigned and that President Culley has appointed Dr. E. L. Wilkins of Clarksdale temporary treasurer. The transfer of all funds and securities has been made. Treasurer Wilkins has made bond in the sum of fifteen thousand dollars, and the financial statement has been forwarded to the Budget and Finance Committee for its audit. The bond has been sent to the Council for its approval.

T. M. DYE, Secretary.

EAST MISSISSIPPI MEDICAL SOCIETY.

The East Mississippi Medical Society met at the Benwalt Hotel, Philadelphia, Thursday, June 18, at 3 p. m. The program:

1. The Patient.—Mrs. Iva Lovell, Meridian.
2. The Present Understanding and Limitations of the Term, Eczema.—Dr. R. W. Hall, Jackson.

3. Symptoms of Colon Disfunction.—Dr. Henry G. Rudner, Memphis, Tennessee.

Immediately following the meeting a luncheon was served in the Benwalt Hotel.

T. L. BENNETT, Secretary.

COPIAH COUNTY.

DR. J. M. CATCHINGS.

Dr. J. M. Catchings of Hazlehurst, died May 18, from an acute heart attack. He had been sick for about two weeks, came home the 14th, and was thought to be better.

Dr. Catchings was one of Copiah County's best citizens and physicians.

W. L. LITTLE, County Editor.

AND THEY STILL OCCUR

The Bureau of Communicable Diseases of the Mississippi State Board of Health reports for the month of March, Typhoid fever, 16; smallpox, 177; diphtheria, 62; for April, typhoid fever, 29; smallpox, 308; diphtheria, 29.

ALL PREVENTABLE DISEASES!

NORTH MISSISSIPPI MEDICAL SOCIETY.

The regular quarterly meeting of the North Mississippi Medical Society was held jointly with the Northeast Mississippi Thirteen Countries Medical Society at Houka, June 16, beginning at 1 p. m. The members of the North Mississippi Society were the guests of the members of the Northeast Mississippi Society.

The North Mississippi Medical Society is indeed proud to have the President of the State Medical Association listed in its membership.

The Mississippi State Medical Association almost lost its President, Dr. John C. Culley, on June 9, when the airplane in which he was returning to Oxford crashed on landing. Fortunately the accident resulted in no serious injuries to Dr. Culley. Dr. Culley had received an emergency call while attending the meeting of the Tri-County Medical Society at Brookhaven. He was also to have appeared on the program of the South Mississippi Medical Society at Laurel on June 11 but was unable to attend.

Dr. and Mrs. A. H. Little, Jr., recently gave a tea honoring President J. C. Culley, at their beautiful residence in Oxford. Guests were the local doctors and their ladies, the members of the faculty of the University and their ladies, and the

students of the medical department of the University. In the receiving line were Dr. and Mrs. John C. Culley and Dr. and Mrs. A. H. Little.

A. H. LITTLE, Secretary.

MISSISSIPPI STATE BOARD OF HEALTH.

"You may expect to have my name on the honor roll each month from now on. Enclosed are some items which you may wish to use."

FELIX J. UNDERWOOD.

Dr. C. C. Applewhite of the State Board of Health attended the meeting of the Texas State Medical Association in Beaumont and delivered a paper entitled, "The Fundamental Principles of Public Health Administration."

Dr. L. L. Lumsden, Medical Officer of the U. S. Public Health Service, who is now stationed in New Orleans, Louisiana, was in Mississippi on May 29 conferring with health officials.

Doctors C. A. Scamman, Lester J. Evans, and Miss Theresa Kraker, representatives of the Commonwealth Fund of New York City, were in the State on May 29 interviewing applicants for medical undergraduate and postgraduate scholarships, and scholarships for nurses. These representatives visited both Pike and Lauderdale counties during their stay here. Those to whom scholarships were awarded will be announced within a short time.

The Mississippi State Board of Health met on June 23, 24, and 25.

The Mississippi Follow-Up White House Conference on Child Health and Protection was held in Jackson on June 26 and 27. The program was as follows:

Friday, June 26, 9 A. M.

Registration All Day

Governor Theodore G. Bilbo, Presiding

Felix J. Underwood, M. D., General Chairman

Music.....Jackson Boys' Band

Invocation.....Dr. Lawrence L. Cowan
Pastor, Galloway Memorial Church,
Jackson, Mississippi.

Greetings.....Governor Theodore G. Bilbo

Music.....Jackson Boys' Band

Statement from the Chairman.

Address: "Community Responsibility and Co-

operation for Child Health and Protection".....Prof. W. F. Bond
State Supt. of Education, Jackson, Miss.

I. EDUCATION AND TRAINING

In the Home.....Mrs. Ellen S. Woodward
Secretary, Mississippi State Board of Development and State Chairman, Better Homes in America, Jackson.

Discussion.....Dr. John L. Sutton
President, Mississippi Children's Home Finding Society, Jackson.

In the Church.....John C. Chambers
Executive Secretary, Mississippi Conference Board of Christian Education, Jackson.

In the School.....W. F. Bond,
State Supt. of Education, Jackson.

In the Community.....Blake W. Godfrey
State Y. M. C. A. Secretary, Jackson.

Friday, 2 P. M.

II. THE HANDICAPPED CHILD.

Prevention, Maintenance, and Protection.

The Medical Care of Handicapped Children
Harvey F. Garrison, M. D., Jackson and Frank Hagaman, M. D., Jackson.

The Child in Employment.....J. W. Dugger, M. D.
Director, Bureau of Industrial Hygiene and Factory Inspection, Jackson.

Discussion.....Miss Marcia Gibbs
Director, Y. M. C. A., Vocational School Jackson.

The Physically Handicapped Child.....
.....Mrs. Mary Baker
Supervisor, Civilian Rehabilitation Work,
State Department of Education, Jackson.

Discussion.....Mrs. D. W. McBryde
Asst. Executive Secretary, State Commission for the Blind, Jackson.

The Mentally Handicapped Child.....
.....H. H. Ramsey, M. D.
Supt. Mississippi State School, Ellisville.
Discussion.....C. D. Mitchell, M. D.
Supt. State Insane Hospital, Jackson.

The Delinquent Child.....Dr. N. B. Bond
Professor of Sociology, University of Miss.
Discussion.....Prof. B. L. Coulter
Industrial Training School, Columbia.

Friday, 8 P. M.

History and Purpose of the White House Conference on Child Health and Protection.....
.....Dr. H. E. Barnard
Director of the White House Conference,
Washington, D. C.

Round Table Discussion.

Saturday, June 27, 9 A. M.

Registration.

Music.....Jackson's Boys' Band
Invocation.....Rev. P. O'Rielly
Catholic Church, Jackson.

Devising a Better Civilization.....
.....Mrs. Walter McNab Miller
American Child Health Ass'n.,
New York, N. Y.

III. MEDICAL SERVICE.

Prenatal and Maternal Care.....
.....James R. McCord, M. D.
Emory University, Atlanta, Georgia.

Discussion.....J. H. Janney, M. D.
Director, Rockefeller Foundation Training
Station for Health Workers, Indianola.

Growth and Development.....Robert A. Strong, M. D.
Professor of Pediatrics, Tulane University,
New Orleans, La.

Discussion.....Noel C. Womack, M. D.
Jackson Infirmary, Jackson.

Recreation and Physical Education.....
.....Miss Gladys Eyrych
State Board of Health, Jackson.

Discussion.....Miss Ruth Beeson
Playground Director, Jackson.

Function of Health Workers in the Care of
Preschool and School Children.....
.....F. Michael Smith, M. D.

Director, Warren County Health Depart-
ment, Vicksburg.

Discussion.....Miss Mary D. Osborne
Supervisor, Division of Maternal and Child
Hygiene, State Board of Health, Jackson.

Closing Session.

Needed Legislation and Follow-Up Plans.....
.....Mrs. W. D. Cook
President, State Parent-Teacher Ass'n., Forest.

PLEDGE OF ALLEGIANCE.

Dr. J. W. Cox of the American Society for the Control of Cancer, visited the State Board of Health while in Jackson attending the meeting of the State Medical Association. Dr. Cox addressed the Public Health Section of the Medical Association.

Examination of applicants for medical licenses were held at the New Capitol on June 24 and 25. On the 24th, examinations on the first two year's medical course were given, and on the 25th, examinations were conducted on the last two year's medical course.

Applications by reciprocity for license to practice medicine in Mississippi were considered on the first day of the meeting of the State Board of Health, June 23.

Recently a preschool clinic was held at Leland, Mississippi. The clinic was planned by Miss Lucile Brewer and was held with the assistance of the physicians and dentists of the county and the personnel of the Washington County Health Department. Thirty-eight preschool children were given thorough examinations and the parents were given advice relative to having any defect existing corrected. Each child was given a Schick test to determine susceptibility to diphtheria. Toxin-anti-toxin, typhoid, and smallpox vaccine will be given those needing it during the summer months. It is believed that having the pupils enter school with no physical handicaps and protected against preventable diseases will be invaluable to both teacher and pupil.

Recent visitors to the State Board of Health: Dr. C. St. C. Guild, American Public Health Association, New York City; Dr. W. F. Walker, The Commonwealth Fund, New York City; Dr. William DeKleine, American Red Cross, Washington, D. C.; Dr. James R. McCord, Emory University, Atlanta, Georgia; Mrs. Miriam Birdseye, U. S. Extension Department, Washington, D. C.; Mrs. Walter McNab Miller, American Child Health Association, New York City; Arthur J. Strawson, National Tuberculosis Association, New York City; Dr. M. Fline Haralson, Chief Quarantine Officer, The Panama Canal; Dr. R. A. Vonderlehr and Dr. O. C. Wenger of the Public Health Service; Dr. R. J. Enochs, Choctaw Indian Agency, Philadelphia. Dr. Enochs was accompanied by Dr. and Mrs. Lee Bates of Cornell University and the U. S. Bureau of Indian Affairs, and Miss Mable C. Head.

Dr. Charles W. Sult, State Health Officer of Arizona, spent several days recently observing public health work in Mississippi. Dr. Sult was accompanied by his daughter, Alice Sult.

HARRISON-STONE-HANCOCK COUNTIES MEDICAL SOCIETY.

The Harrison-Stone-Hancock Counties Medical Society met in regular session Wednesday, June 3, at the King's Daughters' Hospital, Gulfport. The program consisted of reports from the delegates to the Mississippi State Medical Association. Dr. R. W. Burnett reported for Harrison County and Dr. C. M. Shipp reported for Hancock County.

I wish to report the illness of Dr. J. G. Fountain, of Gulfport, who is recovering very rapidly; also the illness of Dr. W. W. Eley, of Biloxi. It is my understanding that Dr. Eley is also rapidly recovering. Dr. D. G. Rafferty, of Pass Chris-

tian, has also been ill at the King's Daughters' Hospital at Gulfport, but has recovered sufficiently to return to his home.

The Harrison-Stone-Hancock Counties Medical Society will have its next regular meeting at the King's Daughters' Hospital, Gulfport, on July 1. The subject will be Infectious Mononucleosis, lead by Dr. W. A. Dearman, Gulfport.

CUMMINGS H. McCALL, Secretary.

VICKSBURG SANITARIUM.

The regular monthly meeting of the staff of the Vicksburg Sanitarium was held on Wednesday, June 10.

Moving pictures, Colles Fracture and the Anatomy of the Abdominal Viscera were shown through the courtesy of the Petrolagar Laboratories.

Special case reports presented:

1. Fracture of Cervical Vertebra.—Dr. A. Street.
2. Carcinoma of the Cecum.—Dr. J. A. K. Birchett, Jr.
3. Double Vagina with Two Distinct Uteri.—Dr. S. W. Johnston.
4. Subacute Mastoiditis with Rupture Internally and Externally.—Dr. C. J. Edwards.

Selected radiographic studies were shown as follows: Fracture of cervical vertebra (ambulatory); Foreign Body embedded in thyroid; Mastoiditis; Cholelithiasis (two cases); Renal calculus; Stricture of rectum; Carcinoma of colon; Lung abscess; Pulmonary tuberculosis.

The meeting closed with a lunch.

CENTRAL MEDICAL SOCIETY.

At the regular meeting of the Central Medical Society on Tuesday, June 16, at 7:30 P. M., at the Edwards Hotel, a resume of the papers of the different sections of the State Association was presented and a general discussion of interesting papers featured.

The following reported on the various sections: Surgery, Dr. T. P. Sparks; Medicine, Dr. G. W. F. Rembert; Radiology, Dr. E. B. Van Ness; Public Health, Dr. C. C. Applewhite; Eye, Ear, Nose and Throat, Dr. W. L. Hughes.

This was the last meeting of the society in Jackson until September, as the July meeting will be in Vicksburg jointly with the Issaquena-Sharkey-Warren Counties Medical Society, and there will be no meeting in August.

W. L. HUGHES, Secretary.

Dr. Walter E. Johnston is home from Vanderbilt University, where he received his degree in medicine on June 10. He will enter the practice of his profession in Vicksburg and will be associated with his father, Dr. Sidney W. Johnston.

The young medical man is the third member of his immediate family to enter the profession, his brother, Dr. Hugh Johnston, now being at the Mayo Clinic.

WOMAN'S AUXILIARY.

At the May meeting of the Woman's Auxiliary of the Issaquena-Sharkey-Warren Counties Medical Society, held at the home of the President, Mrs. E. F. Howard, in response to an invitation from the Chamber of Commerce of Vicksburg, it was voted to co-operate with the other organizations of the city in the annual "Clean up-Paint up" campaign. For this purpose a committee consisting of Mrs. M. H. Bell, Mrs. C. J. Edwards, Mrs. D. A. Pettit, Mrs. S. W. Johnston, and Mrs. V. Bonelli, was appointed.

Doyle E. Hinton, acting Executive Secretary of the National Tuberculosis Association, New York, and J. T. Savage, President of the Mississippi Tuberculosis Association, Jackson, were present, and explained the work of the Tuberculosis Association. The Auxiliary was asked to sponsor the raising of a four thousand dollar fund for the state and to take over the annual sale of Christmas seals for the counties of Issaquena, Sharkey and Warren.

Mrs. M. H. Bell, Vicksburg, attended a special meeting of the Board of Directors of the Mississippi Tuberculosis Association at the Edwards Hotel, Jackson, on June 17. She was accompanied by Mrs. E. F. Howard, President of the Woman's Auxiliary.

The Jackson meeting was addressed by Dr. Kendall Emerson, Managing Director of the National Tuberculosis Association, with headquarters in New York City, by Dr. Felix J. Underwood, Executive Officer of the Mississippi State Board of Health, and by Dr. Henry Boswell, Superintendent of the Mississippi State Sanatorium and Preventorium. Mr. J. T. Savage, of Jackson, President of the Mississippi Association, presided.

Dr. Edwin Akin, Aberdeen, is the new resident physician at the Vicksburg Hospital, succeeding Dr. G. P. Sanderson, who has entered private practice with offices in the First National Bank building. Dr. Akin received his medical degree from the University of Louisville following a medical course at the University of Mississippi.

EXTRACTS FROM THE MINUTES OF THE
HOUSE OF DELEGATES OF THE MISSIS-
SIPPI STATE MEDICAL ASSOCIATION.

Report of Dr. C. W. Patterson, Rosedale,

Vice-President.

To the House of Delegates, Mississippi State
Medical Association.

Gentlemen: On August 21, 1930, following the request of Dr. E. F. Howard, President of the Mississippi State Medical Association, I attended a meeting of the officers of the Association at Jackson.

After making a list of each non-member in the various counties and grouping them under the proper societies, I wrote the following members of the Delta Society before the October meeting and enclosed a copy of non-members with the request to assist in the work of organization by appealing to those who lived in their vicinity: Dr. H. T. Cummings, Pace, Boolivar County, Vice-President; Dr. G. M. Barnes, Belzoni; Dr. G. Y. Gillespie, Greenwood; Dr. W. A. Carpenter, Cleveland, and Dr. R. D. Dedwylder, County Health Officer.

I also visited Dr. Cummings. I appealed to Councilor J. W. Lucas, Moorhead, to get all non-members in his county but received no reply and no non-member's names. He was not at the Belzoni meeting.

At the meeting in Belzoni, October 9, 1930, I collected from Dr. E. R. McLean and got the following new members: Drs. Parnell, Pace and Wiggins, Cleveland.

At this meeting I asked doctors from each town to see non-members in their vicinity, which they promised to do, but their promises were like pie crust—easily broken.

On October 15, I gave Dr. L. B. Austin, President of the Clarksdale and Six Counties Medical Society, a list of all non-members in those counties. I also asked the secretary of that society to assist.

On November 5, I attended the meeting of the Clarksdale and Six Counties Medical Society and addressed them on "Organization." At this meeting I talked to Dr. Brookshire and he paid his dues.

Between November and March I appealed to the doctors individually and wrote many letters.

By request of President Howard I attended a meeting of the Clarksdale and Six Counties Medical Society on March 25, 1931, and received instructions for future work.

At a meeting of the Delta Medical Society on April 8, 1931, I made three separate talks on

organization and suggested that each county Vice-President assist in the work.

On April 15, I attended a meeting of the North Mississippi Medical Society at Holly Springs and made an address on "Organization." I was informed by the Secretary that only 53 had paid from a list of 126 eligible for membership. I also learned from many new names had failed of mention at the business meeting, but were acted upon after my talk.

I also gave a list of the non-members to several doctors at this meeting.

Respectfully submitted,

Charles W. Patterson.

Report of Dr. L. L. Polk, Purvis, Vice-President.

To the House of Delegates, Mississippi Medical
Association.

Gentlemen:

So far as I can learn the office of Vice-President has been strictly one of honor.

Our most active and efficient President, Dr. E. F. Howard, has sought to have the Vice-Presidents do some real constructive work in their own sections. My labors have been in the Seventh, Eighth, and Ninth Districts. I have endeavored to work with, and through, the Councilors of these Districts. Our efforts have been directed toward getting new members into the county societies, and to getting revised lists of memberships. This last has been rather difficult, but the several Councilors have done efficient work along this line, and I believe our lists are very nearly correct.

Councilor J. W. D. Dicks, of the Eighth District, has been very active; and so has his district well organized. He deserves much credit for the work done.

Councilor Dan Williams, of the Ninth District, has continued to keep his work up; so his district is well organized.

Councilor Joe Green, of the Seventh District, has not been on the job long, but has been very active.

Much work is needed to be done in the Seventh District, but owing to the sickness of my wife and myself lasting over a period of six months I could not give as much time to this district as it demanded.

Dr. Green and I have co-operated perfectly in this work. We have written, 'phoned, and in every way urged the doctors to come into our society.

Respectfully submitted,

L. L. Polk.

Report of Dr. T. M. Dye, Clarksdale, Secretary.

To the House of Delegates, Mississippi State Medical Association.

Gentlemen:

Notwithstanding the state-wide economic depression the membership of the Association has decreased only about one hundred for the year. This splendid showing is due in large part to the activity of the President, who has shown an unusual interest in organized medicine during his administration.

During the year a charter was issued to the North Mississippi Society, composed of Benton, Lafayette, Marshall, Panola, Tippah, Union and Yalobusha Counties.

Acting upon instructions of the House of Delegates the bond of the Treasurer was increased to fifteen thousand dollars.

E. M. Gavin, Councilor of the Seventh District, resigned and President Howard appointed Joe E. Green, of Richton, to succeed him.

Historian P. W. Rowland resigned and President Howard appointed J. S. Ullman, Natchez, to succeed him.

Fraternally yours,

T. M. Dye.

REPORT OF THE COUNCILORS.

First District.

The First District is organized into two active societies: the Clarksdale and Six Counties Medical Society and the Delta Medical Society. Each society embraces a large territory and a good sized membership and each holds semi-annual meetings. Effort is being made through the two secretaries to hold a joint social meeting of the two societies during the summer. More frequent meetings are advisable.

There are about two hundred and eighty eligible physicians and surgeons in the District.

On May 1, the Clarksdale and Six Counties Society showed a paid-up membership of fifty-two; the Delta Society showed a paid-up membership of seventy-nine. Regardless of hard times, the general average in attendance, paid-up dues, and general interest manifested have been excellent. The scientific programs have been practical and interesting and freely discussed by members and visitors. No law suits pending to mar "status quo." The morale is excellent and the future bright.

J. W. Lucas, Councilor.

Second District.

The Second Councilor District can report considerable progress. The North Mississippi Six Counties Medical Society, composed of the Counties of Benton, Lafayette, Marshall, Tippah, Winona, and Yalobusha surrendered its charter as did the Panola County Medical Society, forming the North Mississippi Medical Society. This Society meets every three months with a fine attendance and much interest.

The Tate County Medical Society has nine members; one non-member. On account of continued illness of the secretary, the usual number of meetings yearly—six—were not held.

The DeSoto County Medical Society meets every three months, good interest and attendance; twelve members; one non-member.

This County just recently suffered the loss of its oldest and best member, Dr. W. S. Weissinger. No call on medico-legal fund. I have endeavored to keep in touch with all matters in the District.

L. L. Minor, Councilor.

Third District.

The Northeast Mississippi Thirteen Counties Medical Society has a membership to date of 139 out of a possible 182. We are about 20 or 30 members short from 1930. Our society meets every three months, or four times a year. We meet upon invitation from the towns in our territory. Our meetings are well attended and are profitable, we think. There have been no suits, as far as I know, brought against any member of our society. The last four meetings have been at Starkville, Aberdeen, Corinth and Houston. There is nothing else that I know might be presented to the House.

W. M. Robertson, Councilor.

Fourth District.

There are 93 eligible members in the seven counties. There are 49 who have paid their dues to date.

There were four regular meetings held in the past year with an average of 22 members present at each meeting.

	Eligible members	Members
Montgomery	12	7
Carroll	8	4
Webster	11	3
Choctaw	7	5
Grenada	11	8
Holmes	18	11
Attala	20	7
	—	—
Totals	93	49
No losses.		

T. W. Holmes, Councilor.

Fifth District.

The activities of organized medicine in this District are comprised in the work of two societies, the Central and the Issaquena-Sharkey-Warren. Claiborne County has an organization in name only. Two or three doctors get together just before the annual meeting of the State Association and elect themselves officers and delegates. Overtures have been made repeatedly to get Claiborne into either one of the two larger societies in the District, but thus far without avail.

The Central, including the Counties of Hinds, Rankin, Madison, Yazoo, Simpson and Scott, reports a paid-up membership on May 1, of 126 members. Dr. C. L. Green is the President, Dr. W. L. Hughes is the Secretary. This society holds regular monthly meetings with an average attendance of about 60, and have not failed in many years to execute a pre-arranged program. A special feature of the meetings of this society is the conduct of a short clinic before the regular scientific program. Dues are \$8.00 for the year. During the year, this society suffered the loss of four members by death—Drs. Galloway, Armstrong, Basinger and Ross. Also, we have lost several members by removal.

The Issaquena-Sharkey-Warren comprises the three counties hyphenated, and reported a paid-up membership of 35 on May 1. They suffered the loss of one member by death—Dr. J. P. O'Leary. This society meets monthly and never fails to carry out a scientific program. A special feature of this society is to have every member appear upon the scientific program at least once a year. Two joint meetings were held with the Fifth District Medical Society of Louisiana and one with the Central, during the year. Dr. J. B. Benton is the President, and Dr. Leon S. Lippincott is the Secretary.

D. W. Jones, Councilor.

Sixth District.

I want to apologize for work done the past two months, but I got out of bed to attend this meeting.

I want to commend Dr. M. J. L. Hoyer, Vice-President, for his good work in the membership drive.

At the meeting of the East Mississippi Medical Society, the first of August, 1930, at the Patrons Union, we invited Scott County to meet with us and invited them to join with us, but they presented a list of a majority of doctors in Scott County asking to be admitted to the Central Medical Society. This was taken up at a meeting of the Council held in Jackson and their request granted.

East Mississippi Medical Society is in good shape, holding regular meetings every other month and well attended.

Kemper and Leake could do better and advise their coming in with the East Mississippi.

Dr. Dudley Jones informs me that the suit, Martin vs. Hairston, has been settled.

W. G. Gill, Councilor.

Seventh District.

Having been appointed to fill out the unexpired term of Dr. E. M. Gavin, resigned, I have not had much time to work. But with the help of our President, Dr. Howard, and Vice-President, Dr. Polk, some progress has been made. The Seventh District is composed of the South Mississippi Medical Society, active, which has quarterly meetings that last from 2 P. M. to 9 P. M., and at which meetings there is splendid attendance, and well-balanced scientific programs rendered. The Clark-Wayne Society is inactive and at present we have a movement on foot to have Clark County join the East Mississippi Medical Society at Meridian and Wayne join the South Mississippi Medical Society.

Only one damage suit has been filed and that was against Dr. Stroud at Mount Olive and I understand has been settled. Dr. T. Gandy, Royce; Dr. Robert Stewart, Poplarville, and Dr. George Mason, Lumberton, have been taken by death and our society as well as organized medicine suffered a distinct loss in the going of these three active young physicians.

Harmony prevails in our ranks in the Seventh District.

Joseph E. Green, Councilor.

Eighth District.

To the Council and House of Delegates, Mississippi State Medical Association.

Gentlemen:

The Eighth Councilor District consists of three medical societies—namely, the Tri-County Medical Society—embracing in its territory the counties of Copiah, Lincoln, Walthal, and Lawrence; the Pike County Medical Society, a one-county society; and the Homochitto Valley Medical Society, consisting of the counties of Adams, Amite, Jefferson, Franklin, and Wilkinson.

The number of eligible physicians residing in the Eighth Councilor District is 126. The combined membership of the three medical societies is 102; the number of non-members is 24. The percentage of membership for this district is 80 plus per cent.

The membership by societies is as follows:

Medical Society	Members	Honorary	Total	Non-members
Tri-County	33	1	34	17
Pike County	24	0	24	0
Homochitto Valley..	43	1	44	7

The number of members and non-members of the three societies arranged by counties is as follows:

County	Members	Non-members
Copiah	9	10
Lawrence	5	2
Lincoln	14	4
Walthal	6	1
Pike	24	0
Adams	24	0
Amite	4	5
Franklin	7	1
Jefferson	4	1
Wilkinson	5	0

Analyzing the county statistics of membership, we find that in the Tri-County Medical Society, Walthal County leads with 85 plus per cent, Lincoln comes second with 77 plus per cent, Lawrence third with 71 plus per cent, and Copiah last with 46 plus per cent. Pike County Medical Society has 100 per cent membership. In the Homochitto Valley Medical Society, Adams and Wilkinson Counties lead with 100 per cent each, Franklin is second with 87 plus per cent, Jefferson third with 80 per cent, and Amite last with 44 plus per cent.

Since the last meeting of the State Association, the three societies have suffered a death loss of four members. During the year ending May, 1930, the societies of this district reported a combined membership of 93. Deducting our losses from death we show a net gain of thirteen members. This gain is probably a little larger if we deduct removals from the district.

During the past year the Tri-County Medical Society held four meetings, one each quarter. The average attendance at these meetings was 25. The Pike County Medical Society held twelve meetings, one each month, with an average attendance of 18. The Homochitto Valley Medical Society held four meetings, one each quarter, with an average attendance of 16. Very interesting and instructive programs were arranged for these meetings.

A vigorous campaign was put on to bring into organized medicine all eligible non-members in the district. The Vice-Presidents of the three societies were commissioned as recruiting officers in their respective counties.

A list of the non-members in their respective counties was sent to them and they were urged to make a strenuous effort to bring these non-members in. They were advised to call on the Councilor for any aid they might need in order to get these non-members who are eligible into the medical societies.

In order to aid the vice-presidents in this work, I addressed personal letters to every non-member in this district, inviting and urging them to come forward and identify themselves with organized medicine by joining one of the three medical societies.

I believe this campaign has resulted in several new members being added to the medical societies of this district.

With a view to increasing the interest in the societies and stimulating their growth, we organized a joint meeting of the three societies in this district. We met in Brookhaven during the month of October, 1930. A very interesting program was arranged. The President and several of the other officers of the State Association were present at this meeting. We had an attendance of about seventy members.

It was decided at this meeting to perpetuate the joint meeting of the societies, and a permanent organization was effected. A standing committee, consisting of the presidents and secretaries of the three societies, was appointed to act with the Councilor of the district to arrange the details for future joint meetings. Natchez was selected as the next place of meeting and October was designated as the time for the meeting. We are planning a splendid program for this meeting and expect to have a record-breaking attendance.

It is our intention to make an aggressive campaign for new members and I hope that in the near future this district will be able to show approximately 100 per cent membership.

The economic depression prevailing during the past year has no doubt prevented a larger gain in membership.

There have been no malpractice suits in this district brought to the attention of the Councilor during the past year.

I believe a live, energetic program committee is essential for each society. Every program should be interesting and instructive. Round table discussion of clinical cases, I believe, to be more important than papers. I do not mean to infer that scientific papers are not important, but I would rather stress clinical case reports as probably being of more interest to the general practitioner. Medical economics should receive more

attention than we have been giving to this important subject in the past. This subject should have a place on our programs. As this is a rather materialistic age in which we are living, men demand some material return for the money expended in dues. Unless we can give this return, we cannot expect to interest them in organized medicine. Medical ethics also should have a place in our programs and should be stressed.

I would recommend that the medical societies endeavor to inculcate a spirit of team-work and comradeship among their members, make the local medical society a militant organization, affording its members a means of improving themselves professionally and aiding them to solve the economic problems that confront our profession.

J. W. D. Dicks, Councilor.

Ninth District.

The Harrison-Stone-Hancock Counties Medical Society continues to hold its regular meetings in the evening of the first Wednesday of each month. These meetings in the past year have been held at Biloxi, Gulfport, Pass Christian, and Bay St. Louis, with good attendance and interesting and instructive programs.

The Jackson County Medical Society has been invited to join with the Harrison-Stone-Hancock Counties Medical Society.

The Jackson County Medical Society meets regularly on the second Tuesday evening in March, June, September and December.

Every physician in the county is a member in good standing except one.

Daniel J. Wilson, Councilor.

REPORT OF DELEGATE TO THE MEETING OF THE AMERICAN MEDICAL ASSOCIATION.

Detroit, Michigan, June 23 to 27, 1930.

To the President and House of Delegates, Mississippi State Medical Association.

I attended the last meeting of the American Medical Association in Detroit as a delegate from the Mississippi State Medical Association. I have been requested by your President to present to you a report of the proceedings of the House of Delegates in an endeavor to bring into more intimate contact the association of our Society with the parent organization. As you are aware, the American Medical Association occupies a relationship to the various state organizations similar to that of the state organization to the various local or county societies.

In the organization of the House of Delegates at its initial meeting one is struck at once by the rigorous scrutiny of the credentials of the delegates. No one is seated unless he can produce indisputable evidence of his appointment as a delegate or alternate. A number of members of the various state societies who desired to represent their societies in the absence of delegates were unhesitatingly refused admission to the House by the presiding officer.

Following the seating of the delegates came first the address of the Speaker of the House, after which was the appointment by him of the various reference committees. The Speaker, Dr. F. C. Warnshuis, after welcoming the delegates to Michigan, of which State he is a resident, devoted the most salient portions of his address to an explanation of the mode of procedure to be followed in the handling of the various matters, reports, resolutions, new business, etc., coming before the House.

Next in order came the address of the retiring president, then that of Dr. Gerry Morgan, president-elect, followed by that of the secretary, and then the reports of the board of trustees and the various bureaux.

Dr. Harris devoted his address in large measure to a plea, in an endeavor to forestall state medicine, for the various county societies throughout the nation to organize and incorporate for business purposes, medical centers owned and controlled by the medical profession, where all classes of persons who are unable to pay regular fees to their own physicians could secure the highest type of treatment at prices within their incomes. There is no question but that this is a real problem confronting the profession and one to which we should all give our most earnest thought and endeavor. Whether Dr. Harris' method is the most feasible plan and one adapted to all sections one cannot say. He has given much thought and study to the subject and in our opinion it is well worthy of our serious consideration. It is a vital subject which will eventually affect each member of the medical profession wherever he may be practicing.

Dr. Morgan in his address paid particular attention to the relation of the physician to the hospital from the standpoint of the pecuniary value of his services. This was stressed on account of the growing tendency of the public and insurance companies to assume that the payment of the hospital bill discharged all obligations for treatment including medical and surgical services rendered. To quote Dr. Morgan: "These services (the physician's) are his direct individual contribution to the patient receiving them, and as such they cannot be regarded as part of that which the hospital

sells or gives away, according to its own corporate judgment."

The Secretary's report dealt with the membership of the Association and a plea for militant, co-ordinated, homogenous organization from top to bottom, or from national organization down to the individual member of each county society. This condition we feel can ultimately be attained by a well defined program carried out year by year, by the various state organizations.

When one comes to review the report of the Board of Trustees one is brought to a full realization of the immensity of the work that is being accomplished by the present organization.

The publication of the Journal of the American Medical Association, Archives of Neurology and Psychiatry, Archives of Dermatology and Syphilology, Archives of Pathology, Archives of Surgery, Archives of Ophthalmology, Archives of Otolaryngology, Archives of Internal Medicine, American Journal of Diseases of Children, and the Quarterly Cumulative Index, have all been kept upon the highest plane of scientific medicine, and while some have been published at a financial loss, we feel that from the standpoint of advanced and scientific medicine they are well worth the expense.

The library has grown from year to year and has been so conducted as to put its facilities at the disposal of any one of us. During 1929, 2000 library packages were supplied, approximately 5000 periodicals were loaned. To any physician desiring to take advantage of its services it offers a fertile source of information on any medical subject.

It is hardly necessary to mention the great work being accomplished by the Council on Pharmacy and Chemistry, in protecting the profession and public from exploitation. All of the new drugs and remedies are thoroughly investigated by it and a report rendered the profession through the columns of the Journal.

Because of the great public interest in foods and the exploitation of food products by commercial interests, the Council investigates thoroughly these products, and keeps us informed as to their legitimate worth.

The Council and Physical Therapy has sought through the columns of the Journal and by radio broadcasting to keep us informed and to educate the public as to the relative merits of the various physio-therapy agents.

The field of physio-therapy is comparatively new. Many of the methods are empiric in char-

acter, requiring all the closer scrutiny on the part of the Council. For this reason this phase of work has been placed under several different committees, viz., roentgen-ray, education, radium, advertising, scientific research, nomenclature and definition, and standardization.

The Bureau of Legal Medicine and Legislation is constantly watching legislative developments both state and national and uses its influence to the end that legislation affecting the profession and public be of such a character as to be for their best interests. There was brought strongly to the attention of the House the present attitude of the Government toward the hospitalization and treatment of conditions and diseases not originating in the service and having no connection therewith. To quote from its report: "Now, however, the Government is constructing numerous hospitals and providing many beds solely to accommodate persons suffering from diseases and injuries in no way connected with the service. The excessive demands that have heretofore been made for such socialistic service from the Federal Government have been and are leading to still further demands, and the end is not yet in sight. The situation is grave."

This bureau functions in every field of legal endeavor where its services will serve to protect the interests of the profession and public.

The duties of the Bureau of Health and Public Instruction are mainly educational in character, consisting of addresses, radio talks on subjects of public interest, and the distribution of literature dealing with health, hygiene, etc.

Regarding the scope of work done by the American Medical Association I can do no better than to quote two concluding paragraphs from the report of the trustees:

"Apparently many members do not have any genuine appreciation of the scope of the work of the Association. Many seem to be unaware that any activities are engaged in except those necessary for the production of the Journal; others appear to believe that the Association is concerned only with the publication of its periodicals.

The councils of the Association are constantly carrying on constructive and significant work in the promotion of scientific medicine; the Association's bureaus deal with matters pertaining to the interests of the medical profession and the public welfare. In addition they constitute a service department through which information is

continually disseminated to the officers of component and constituent medical societies and to individual members of the Association as well as to the general public."

The Judicial Council in its report to the House of Delegates stated that the work of this body was becoming increasingly heavier because of the developments in industrial medicine, the activities of corporations in medical fields, the expansion of public health programs, especially those of unofficial agencies, the organization of so-called hospital associations and co-operative diagnostic laboratories, the creation of funds and foundations concerned in some manner with medical practice or public health, the working of compensation laws, and many other factors which have given rise to many new questions and have produced many perplexing problems of which final solution is not easily possible. This Council is doing a constructive work and should be given every assistance possible towards the working out of the problems presented to it.

The Council on Medical Education and Hospitals has been directly instrumental, you might say, has been the main factor in the elevation of the standards of medical education, and the placing of our medical schools upon a high scientific basis.

The following quotation gives a brief resume of the scope of the work embraced: "During the last twenty-five years the Council's field of service has been gradually extended until now it has to do with the four following departments of medical practice.

1. Medical education, including premedical, undergraduate and graduate medical education. It also includes medical licensure, as the standards of licensure depend considerably upon the standards put into effect by the medical schools.

2. Hospitals, including (a) hospitals of from seven beds up which are considered worthy of being named in the 'Hospital Register'; (b) those sufficiently developed educationally to deserve approval for the training of interns, and (c) those worthy of approval for higher internships, or residencies, in the specialties.

3. Clinical Laboratories. The Council's work in this field was authorized by the House of De-

legates in 1923 following simultaneous but independent petitions from (a) the American Chemical Society, and (b) the Section on Pathology and Physiology of the American Medical Association, requesting that after due investigation, a list of clinical laboratories deemed worthy of approval be established.

4. Laboratories of Radiology. In 1928 the section on Radiology of the Illinois State Medical Society petitioned the House of Delegates to have the Council's duty of supervising clinical laboratories extended to include also the laboratories of radiology. In both these fields the supervision included not only private laboratories but also the departments of hospitals."

In the time at my disposal I have necessarily had to be brief and give a cursory review of what struck me as the most salient features brought out during the meeting. One is impressed by the magnitude of the work that is being accomplished, and it is brought definitely home to one that every citizen and every physician is being affected by the work of this organization, much of which is done by men without remuneration with a whole souled devotion to duty in order to make this a better world in which to live.

There is one observation that I would like to make and that is that, if some means could be devised by which our organization could keep an able representative in the House of Delegates for a longer period of time his influence would be much enhanced and we would be the gainers thereby.

One is struck by what is accomplished in an assembly of this character by one who is familiar with the routine and conversant with the guiding hands in contradistinction to what one accomplishes who is new to the business and who is a stranger amongst strangers.

We look upon being appointed as a delegate as an honor, which it is, but it is also a position of trust and carries with it an obligation of work to be done, which is difficult of accomplishment under our present system.

Hugh A. Gamble.

Fraternal Delegate.

A pleasing feature of the session was the official reception and introduction of Dr. Randolph

Lyons, New Orleans, Fraternal Delegate from the Louisiana State Medical Society. Dr. Lyons graciously extended the greetings of the Louisiana Society to the Mississippi Association.

Medical School.

John C. Culley presented the following resolution relative to the University Medical School, which was adopted:

Articles of Resolution.

Whereas, In the course of the past year of unsettled political conditions within the State of Mississippi, whereby the University of Mississippi School of Medicine has been, and still is, placed in jeopardy; and,

Whereas, The American Medical Association, through its respective officers, Doctor N. P. Caldwell, Secretary of the Council on Medical Education and Hospitals, and Doctor Fred C. Zapffe, Secretary of the Association of American Medical Colleges—have been so wise, and considerate and judicious in their every act in passing on the status and rating of the University of Mississippi School of Medicine; have worked unceasingly and unselfishly with the officers of our Medical School and this Association to keep this, Mississippi's only Medical School, intact, operative, and of Class-A rating; and

Whereas, Doctor P. L. Mull, Dean of the University of Mississippi School of Medicine, the faculty members of our Medical School, friends and alumni throughout the State and elsewhere have loyally and unselfishly given unreservedly of their time, resources, influence and energy to the welfare and protection of our State Medical School, despite adverse conditions and depleted treasuries; now, therefore,

Be it Resolved:

1. That we, in regular session assembled, as the State Medical Association of Mississippi, unanimously express our gratitude, indebtedness and high esteem to Doctor N. P. Caldwell, Secretary of the Council on Medical Education, Doctor Fred C. Zapffe, Secretary of the Association of American Medical Colleges, Doctor P. L. Mull, Dean of the University of Mississippi School of Medicine,

the faculty of the University of Mississippi School of Medicine and those others instrumental in withstanding and combatting the destructive influences which came so near destroying our Medical School and bringing its good name, excellent record and enviable reputation of those many years into disrepute and extinction; and

2. That these resolutions be forwarded respectively to Doctors Caldwell, Zapffe, Dean Mull and the faculty of the University of Mississippi Medical School; that a copy be given to publication and a copy hereof be spread on the records of this Association.

Edley H. Jones introduced the following proposed changes in the Constitution and By-Laws: Constitutional change: Article VI., Sec. 1, insert after the word "Treasurer" "a Sergeant-at-Arms." Sec. 2, delete the word "and" after President-Elect and add "and Sergeant-at-Arms" after "Vice-Presidents." By-Law changes: Amend Chapter VI., Sec. 2, by inserting after "Treasurer" "three names for Sergeant-at-Arms." Amend Chapter VII., by adding section 6 as follows: The duties of the Sergeant-at-Arms shall be to aid and assist the President in preserving order, seating delegates properly, and any other duties prescribed by the President. He shall be authorized to appoint as many assistant Sergeants-at-Arms as may be necessary to aid him in the proper performance of his duties.

Honorary Members.

Dan J. Williams, on behalf of the Harrison-Stone-Hancock County Society, proposed the following members for honorary membership and they were unanimously elected: D. G. Mohler, Gulfport; J. D. Wilkerson, Gulfport; G. A. McHenry, McHenry.

O. N. Arrington, on behalf of the Tri-County Society, presented the name of J. M. Catchings, Hazelhurst, for honorary membership, and he was unanimously elected.

C. W. Patterson, acting for the Delta Society, offered the name of L. B. Sparkman, of Rosedale, for honorary membership, and he was unanimously elected.

H. F. Garrison, on behalf of the Central Medical Society, presented the name of B. L. Culley, of

Jackson, for honorary membership, and he was unanimously elected.

Meet in Jackson in 1932.

After a spirited contest Jackson was selected as the meeting place for 1932.

H. A. Gamble moved that the Secretary communicate the sympathy of the Association to the families of Drs. Lynch and Stucky, who were so tragically killed a day or two before. This was unanimously adopted.

Appreciation.

W. H. Frizell offered the following resolution of appreciation, which was unanimously adopted:

Moved by the Mississippi State Association that its deep appreciation be expressed for the many courtesies shown by the Central Medical Society, the citizens of the city of Jackson, the management of the Edwards Hotel and by the press of the city of Jackson and reporters of Southern daily papers, during this session in the city of Jackson.

Be it further moved, that we express our hearty appreciation for active and vigorous efforts of our President, Dr. E. F. Howard, for his constructive administration, and the efficient manner in which he has presided over its deliberations.

J. S. Ullman,
W. L. Little,
W. H. Frizell.

A motion offered by W. G. Gill was adopted to the effect that any member of the Association making examination for life insurance for any of the old line companies for a fee of less than \$5.00 was liable to expulsion from the Association.

Budget and Finance.

The Committee on Budget and Finance reported as follows through W. L. Little, which report was adopted:

To the House of Delegates.

Gentlemen:

Your Committee on Budget and Finance has audited and approved the financial reports of the Treasurer and the Secretary. We recommend the following budget for the year 1931-32:

President's Expense Account	\$ 100.00
Secretary's Salary	500.00
Secretary's Expense Account	100.00
Editor's Expense Account	300.00
Historian's Expense Account	100.00
Council's Expense Account	100.00
N. O. Medical & Surgical Journal	1,000.00
Transactions	200.00
Expense Annual Meeting	300.00
Incidentals	50.00
Total	\$2,750.00

We recommend that the following bills be allowed:

President's Expense Account	\$ 100.00
Vice-President Hoye Expense Account	37.14
Vice-President Patterson Expense Account	50.00
Vice-President Polk Expense Account	17.85
Councilor Lucas Expense Account	12.35
Councilor Minor Expense Account	10.35
Councilor Jones Expense Account	27.05
Councilor Gill Expense Account	7.47
Councilor Green Expense Account	7.20
Councilor Williams Expense Account	17.65

W. L. Little,
S. E. Eason,
D. E. Montgomery.

Report of the Council.

Since adjournment of the State Association, the Council has held one semi-official meeting, at Jackson, August 21, 1930. President Howard had requested the Council to meet with other officials of the Association for a round-table discussion of matters of organization. Williams, Robertson, Gill, Lucas, and Jones attended this meeting, along with President Howard, President-elect John C. Culley, Secretary T. M. Dye, Vice-Presidents Hoye, Patterson, and Polk, and Leon S. Lippincott, Editor of the Journal. The Councilors were admonished by the President of their duty as organizers of the Association membership, and an intensive campaign projected with the object of bringing into the membership every eligible physician within its bounds.

After adjournment of this meeting, the Council went into executive session.

Councilor Gill presented the signed request from a majority of the physicians of Scott County ask-

ing that this county be transferred to the Fifth District with membership in the Central Medical Society. The request was approved, and the Secretary of the Council was instructed to take up the Charter of the Scott County Medical Society, and merge the same into the Central Medical Society.

A like request was submitted by Councilor Minor, in writing, for Panola County, requesting that this county be allowed to come into the North Mississippi Six County Medical Society, and that the name of this Society be changed to the North Mississippi Medical Society. The request was approved and Councilor Minor was instructed to take up the Charter of the Panola County Medical Society and merge the same as requested into the North Mississippi Medical Society, securing a new charter. Secretary Dye was requested to again remind the local societies that dues must be paid by February 1. Failure of the Secretary of a local society to file his report by February 1, automatically suspends that society from membership until such report is filed, and the members thereof would be ineligible for defense by the Council during that interval. It is urged that dues be collected before January 1, as far as possible.

Secretary Dye was requested to send a list of physicians in each county who are not members of the Association to the respective Councilors immediately after receiving these reports from the Secretaries.

The Council approved defense of the law-suit of J. H. Smith vs. R. A. Clanton, et al., and ordered a check issued for attorney's fee in this case. In the case of Ira Martin vs. Dr. S. H. Hairston, Councilor Gill was instructed to look into this matter, the plaintiff in this case having died since the suit was filed.

Council adjourned to meet in May at the regular Convention.

Since that date, Councilor Gavin has resigned, and Dr. Joseph E. Green, of Richton, has been appointed to fill out the unexpired term. Several law-suits have been filed against members of the Association and the Council is taking care of their defense; disposition of such cases will be reported later.

The Council met on call of the Chairman in Room 223, Edwards House. Present all of the Councilors.

Each Councilor presented a written report of the conditions of affairs in his district. Councilor Lucas reported that there was nothing in his district requiring attention at this meeting. Councilor Minor reported that there was nothing in his district requiring attention except confirmation of the action of the executive committee whereby the name of the North Mississippi Six Counties Medical Society was changed to the North Mississippi Medical Society, with the following counties comprised therein: Benton, Lafayette, Marshall, Tippah, Union, Yallobusha, and Panola. The Councilor hopes to get into this Society the counties of Tate and DeSoto, where the work has not been to his satisfaction. Councilor Robertson reported that there was nothing in his district requiring attention. Councilor Holmes made the same report for the Fourth District. Councilor Jones made the same report except that the law-suit of Mrs. Brown vs. Dr. J. M. Ware, is still pending in the courts. Approval of the defense in this case had already been given by the executive committee. Sixth district, Dr. Gill reported nothing requiring attention except final order for the issuance of a check to Hon. V. B. M. Miller for services in the case of Martin vs. Hairston. This was done, and check issued accordingly. Dr. Green filed a request to transfer Clark County to the East Mississippi Medical Society and asked permission for Wayne County to be transferred to the South Mississippi Medical Society. He was instructed to secure a written request from the majority of the doctors, members of the Association, in each county, and file same with the executive committee. Dr. Green reported one law-suit wherein Dr. W. F. Stroud was sued. It appeared that a druggist in the employ of Dr. Stroud filled the prescription complained by the woman for some other doctor. Therefore, the Council construed that there was no charge against Dr. Stroud's professional standing or integrity as a physician, even though he was as owner of the drug store, legally responsible for the acts of the druggist in his employ. The Council has repeatedly ruled that the Medico-Legal Fund is for the protection of the members of the Association, for their professional capacity. Matters of business should be covered by other insurance.

May 12, 1931.

The Secretary of the Council was instructed to again call attention of the members of the Association to the procedure required when asking for defense by the Association. Chapter 14 of the By-Laws explains this in detail. Briefly summarized, it is as follows: 1. Immediately confer with your Councilor, as to employment of attorney. 2. Present your case in writing; that is, a copy of plaintiff's declaration; and your reply thereto; a statement from your County Committee on Medical Defense, which committee is composed of your Secretary, your Councilor, and the member of the County Society. Incidentally, the Secretary must certify to the time of payment of your dues. If the local committee approves the defense, your Councilor will forward the papers to the Secretary of the Executive Committee of the Council, who will forward same, if in due form, to the two other members of the Executive Committee. If the Executive Committee approve the defense, your tee to order check issued for attorney's fees without approval of the entire Council.

DR. G. W. BARLOW.

Dr. G. W. Barlow of Lake, Scott County, died suddenly at his home on May 14. On that day Dr. Barlow had been attending to his practice as usual and had returned to his home, when he was taken ill, complained of pain in his head, and died of apoplexy in less than an hour.

Dr. Barlow was born at Harrisville, Simpson County, March 7, 1868. After finishing high school, he entered Louisville Medical College, where he was graduated in 1889. During the same year he passed the State Board examinations and began to practice his profession in his native community. Here he remained for 24 years. In 1913, he moved to Star, Rankin County, and practiced there until 1930 when he moved to Lake. He was of the old school of "country doctors," who never knew tire or impatience in administering to his fellowmen. He was loved and trusted by everyone who knew him and will be sadly missed.

Survivors are his widow, Mrs. Mattie Barlow, five sons, Billy, and Royce of Star, Jan and Walter of Jackson, and Tom of New Orleans, and two daughters, Miss Lucille of Waterproof, La., and Mrs. W. C. Cates of Converse, La.

GRENADA COUNTY.

There is little of personal nature to report for Grenada County. Our doctors are well and active with routine duties. A fine fraternal spirit exists among us and we have one hundred per cent membership in our local society.

We are fully behind our new President and want to help him to have a good year.

Our membership will be interested to know that our esteemed Ex-President Dr. J. W. Young, is in good general health and though unable to get about is still keenly interested in everything medical.

T. J. BROWN, County Editor.

ISSAQUENA-SHARKEY-WARREN COUNTIES MEDICAL SOCIETY.

A joint meeting of Issaquena-Sharkey-Warren Counties Medical Society and the Fifth District Medical Society of Louisiana was held at the St. Francis' Sanitarium, Monroe, on Tuesday, June 16. Approximately one-half of the entire membership of the Mississippi Society was present.

A fine banquet followed by an excellent scientific program and special entertainment features made up a most pleasant and profitable meeting.

A return joint meeting will be held in Vicksburg in December with the Issaquena-Sharkey-Warren Counties Society as host.

The next meeting, a joint gathering with the Central Medical Society, will be held in Vicksburg on Tuesday, July 14, at 7 P. M. The Central Medical Society will furnish the scientific program.

HONOR ROLL FOR JULY.

J. S. Ullman, T. M. Dye, F. J. Underwood, J. H. Newcomb, J. M. Acker, T. L. Bennett, A. H. Little, Cummings H. McCall, W. L. Hughes, W. C. Pool, C. A. Pender, L. Wallin, F. P. Durfey, E. B. Burns, W. H. Frizell, L. J. Rutledge, M. L. Montgomery, C. W. Patterson, G. S. Bryan, K. P. McRae, W. H. Curry, R. P. Donaldson, R. B. Cunningham, C. M. Coker, R. M. Stephenson, W. L. Little, T. J. Brown, D. W. Jones.

The above co-operated in the preparation of the news section for this month. Your editors thank you.

BOOK REVIEWS

The Chest in Children: By E. Gordon Stoloff, M. D. Paul B. Hoeber, Inc. 1930. *Annals of Roentgenology* Vol. XII. pp. 432.

This large volume contains very beautiful illustrations of chest radiographs with descriptive text and in many instances diagrammatic sketches. Suggestions for diagnosis are very clearly set forth, and the anatomical as well as developmental aspects of certain structures such as thymus gland are described.

This book should be a very valuable addition to the practitioners pediatric library.

L. VON MEYSENBUG, M. D.

Clinical Nutrition and Feeding in Infancy and Childhood: By I. Newton Kugelmass, M. D., Ph. D., Sc. D. Philadelphia. J. B. Lippincott Company. 1930. pp. 345.

The purpose of this book is to supply the general practitioner with information concerning the etiology, diagnosis and treatment of the problems of pediatrics involving nutrition. It comprises modern contributions applicable throughout growth from the antenatal period to infancy and from early childhood to pubescence in the cause and prevention of disease, maintenance of health, and effective treatment of disease, for uninterrupted growth and development.

While the title of this book leads one to believe that it deals only with feeding during infancy and childhood, it goes further and takes up blood disease and the infectious diseases.

The illustrations are good and there are reference to the literature throughout the book.

It is not recommended as a text book for students, but should be handy for the general practitioner.

L. VON MEYSENBUG, M. D.

The Physics of X-Ray Therapy: By W. V. Mayneord, M. Sc. Columbus, Ohio. Hugh A. Lound. 1931. pp. 177.

This small book contains seven chapters and one hundred and seventy-seven pages, with one hundred and six illustrations.

We recommend this book to all radiologists who are not well informed on the physics of roentgen-ray therapy. Too many use the roentgen-ray empirically in the treatment of disease, and many bad results are obtained for this reason. The author

clearly explains the modern use of physical factors in the scientific application of the roentgen-ray.

LEON J. MENVILLE, M. D.

Practical Radiation Therapy: By Ira I. Kaplan, B. S., M. D. Philadelphia, W. B. Saunders Co. 1931. pp. 354.

The author has had a great deal of experience in the use of radium and roentgen-ray in the treatment of disease. Some 2,000 patients is referred to him annually for radiation therapy.

We are impressed with his experience that small doses of heavily filtered radium applied over a long period of time is more efficacious than large doses for a short period. This has been our experience and we believe that the pendulum is slowly but surely swinging in this direction.

The first chapter of this book contains a brief but interesting historical description of the discovery of the roentgen-ray and radium.

Beautiful illustrations accompanies the text and adds much to the interest of this book which is a practical one, and contains valuable information to the radiologist who will find it very useful in his practice.

LEON J. MENVILLE, M. D.

Year Book of General Surgery: Ed. by E. A. Graham, A. B., M. D. Chicago, Year Book Publishers. 1930. pp. 847.

Following the custom of previous years, this volume gives in abstracted form the annual review of the surgical literature of the world, laying stress in many articles of particular interest which have been published during the year.

Among these is the review of many articles in anesthesia with special emphasis upon the substances relied upon for the production of full surgical anesthesia, several articles dealing with some of the casualties following their use are also detailed.

The subjects of hyperparathyroidism and sympathectomy in circulatory diseases of the extremity, as well as the surgical application of therapeutic venous obstruction are extensively discussed.

The entire book is not only easily readable, instructive and practical, but also gives an authoritative answer to the salient practical points of current surgical progress in a condensed and easily obtainable way.

PAUL G. LACROIX, M. D.

Cerebrospinal Fluid, in Health and Disease: By Abraham Levinson, B. S., M. D. 3rd Edition. St. Louis, C. V. Mosby Co. 1929. pp. 386.

This is the third edition of another noteworthy contribution on a special subject from the pediatricists. Logically presented, the first chapter consists of the history of cerebrospinal fluid. Herein we learn that Hippocrates tapped the ventricles in hydrocephalus, that Herophilus discovered the fourth ventricle, and that the versatile Leonardo da Vinci concerned himself with the third circulation. Two of his cartoons are reproduced. Touched upon are the discoveries or works of Hemesius, Galen, Glisson, Weil, Haller, Cotugno, Magendie, Schmidt, Corning, Wynter, Morton, Quinke, Middeldorpf. The chapters that follow consist of a general review garnished by the author's own observations concerning the anatomy, chemistry, physiology and pathology of the cerebrospinal fluid. It is intelligently indexed and should be extremely worth while for rapid reference.

MAURICE SULLIVAN, M. D.

The Centennial History of the Tennessee State Medical Association: Edited by Philip M. Hamer. Nashville, Tennessee State Medical Association. 1930. pp. 580.

Lately there has been an epidemic of state medical society histories. This is just another one, over which it is difficult to become very excited unless you are particularly interested in Tennessee. One chapter, however, is of general interest. It is the chapter on Medical Education by Otis Warr. He describes the evolution of medical education in the state, which according to Mr. Flexner, "At one time harbored more low-grade medical schools than any other Southern state." Eighteen medical schools were founded. Most of them were short-lived. The Memphis Medical College, the Botanicomedical College, the Nashville Medical College, the Shelby Medical College, the Memphis Hospital Medical College, the University of Tennessee, The Chattanooga Medical College, the Tennessee Medical College, the Sewanee Medical College, the College of Physicians and Surgeons, the Meharry Medical College, the Hannibal Medical College, the Chattanooga National Medical College, the Knoxville Medical College, the University of West Tennessee College of Medicine and Surgery, have given way to three institutions, viz: University of Tennessee, Vanderbilt and Meharry (for negroes). How and why this chaotic multiplicity of schools, what caused each to fail or to merge with another, why Cornelius Vanderbilt made possible the establishment of one of the South's greatest institutions,

is all told so well by Dr. Warr that he steals the book.

MAURICE SULLIVAN, M. D.

Diagnosis and Treatment of Brain Tumors: By Ernest Sachs, M. D., A. B. St. Louis, C. V. Mosby Co. 1931. pp. 396.

The work is written by a man who is both a neurologist and a neurosurgeon, which fact is well exemplified throughout the entire book. In reading the book one is impressed with the clearness in which the various subjects are presented and the logic which the author has used in all of his assertions. The entire work represents largely the author's own experience, which has been very extensive, and points are well illustrated by representative cases together with operative findings. The first chapter on surgical anatomy and physiology is excellently written, and it would be well worth the time of any physician to read it carefully. A large portion of the chapter on methods of examination deals with roentgen-ray examination in which many characteristic and illustrative roentgenograms are shown. The author, however, feels and emphasizes that laboratory methods of diagnosis are of much less significance in the diagnosis of brain tumors than are the clinical history and findings. In the chapter on symptoms and signs of increased intracranial pressure the original color paintings of changes in the eyegrounds are extremely valuable. The entire work, however, is profusely illustrated, there being two hundred and eighteen illustrations, all of which are well done. The chapter on technic is especially clear and well illustrated from the set-up in the operating room to the various steps in the operative procedure.

One can without hesitation say that this is undoubtedly the best work of its kind in the English language and should be of value to any physician, even though he is not especially interested in neurosurgery.

ALTON OCHSNER, M. D.

Studies in Urology: From the Cornell University Dept. of Urology, author. 1930. pp. 101.

A review of the October, 1930, number of the Cornell University bulletin in which is reported the studies from the department of urology reveals the excellence of the work that comes from that particular department of the school.

It contains complete and often well illustrated articles on practically every condition, both surgical and otherwise, that is encountered in the practice of urology, and written by such eminent authorities as Keyes, McLellan, Stevens, Barringer, Jeck, Munch, Wehrhein and Campbell.

A careful study of this volume is of equal value as a study of any of the modern published text books on urology, and perhaps even more so, due to the fact that it brings to the profession the latest word in that specialty.

W. A. REED, M. D.

Hemorrhoids: The Injection Treatment and Pruritus Ani: By Lawrence Goldbacher, M. D. 2nd Rev. Ed. Philadelphia, F. A. Davis Co. 1931. pp. 207.

This book outlines the author's plan of treating hemorrhoids by the injection of 5 per cent phenol in cottonseed oil. The surprising thing about this treatment is the very large dose he uses at an injection. "At various times he (the author) has injected as much as 20 cubic centimeters of 5 per cent phenolized oil at one treatment (divided into two injections of 10 cubic centimeters each, at different sites.)"

The book is neatly arranged and printed, and plentifully illustrated, but too much space is wasted in trying to fill up its 207 pages.

MAURICE LESCALE, M. D.

Primary Syphilis in the Female: By Thomas A. Davies, M. D. (Lond.), London, Oxford Univ. Press. 1931. pp. 103.

A most complete resumé of the type, location and incidence of the primary luetic lesions found in the female. Great stress is placed on the frequency of the primary lesions of the cervix uteri, which is so often overlooked.

He well points out the rarity of the typical chancre and the great necessity of the use of the dark field as a diagnostic measure.

This little book is of inestimable value to every venereologist as well as gynecologist.

MONROE WOLF, M. D.

Practical Dietetics for Adults and Children in Health and Disease: By Sanford Blum, A. B., M. S., M. D. 4th Rev. & Enl. Ed. Philadelphia, F. A. Davis Co. 1931. pp. 380.

Another book on dietetics, of which there seemed already to be an abundant supply. The present work has the advantage of simplicity and clearness. The arrangement, alphabetically, also renders reference easy and rapid. The recommendations for diets are well thought out and based upon authoritative standards. The fact that there is no lengthy or elaborate discussion of the diseases for which the diets are suggested may be looked upon either as an advantage or as a disadvantage, according to the purpose to which the book is to be applied.

I. I. LEMANN, M. D.

Collected Papers, 1904-1929: By Edwin Beer, M. D. New York, Paul B. Hoeber, Inc. 1931. pp. 827.

This volume consists of most of the medical publications of the author that have appeared during the past twenty-five years. The papers are grouped chronologically and according to subject-matter—gastro-intestinal, liver, kidney, bladder, ureters, prostate, spleen and spinal cord.

Each paper is easily readable, scientifically discussed and of practical value, giving the reader the benefit of the author's vast experience.

PAUL LACROIX, M. D.

PUBLICATIONS RECEIVED.

Oxford University Press, London: *Breast-Feeding*, by Margaret Emslie, M. B., Ch. B. Thomson & Miles' *Manual of Surgery*, by Alexander Miles, M. D., LL. D., F. R. C. S., Ed., and D. P. D. Wikie, M. D., F. R. C. S., Ed. and Eng.

P. Blakiston's Son & Co, Inc., Philadelphia: *Recent Advances in the Study of the Psychoneuroses*, by Millais Culpin, M. D. (Lond.), F. R. C. S. (Eng.).

Paul B. Hoeber, Inc., New York: *The Infant Welfare Movement in the Eighteenth Century*, by Ernest Caulfield, M. S., M. D. *The Physician of the Dance of Death*, by Aldred Scott Warthin, Ph. D., M. D., LL. D.

Williams & Wilkins Company, Baltimore: *Fighting Disease with Drugs: A Symposium*, edited by John C. Krantz, Jr. *The Significance of Waterborne Typhoid Fever Outbreak, 1920-1930*, by Abel Welman and Arthur E. Gorman.

C. V. Mosby Company, St. Louis: *An Introduction to Gynecology*, by C. Jeff Miller, M. D. *Clinical Dietetics*, by Harry Gauss, M. S., M. D., F. A. C. P.

The MacMillan Company, New York: *Health on the Farm and in the Village*, by C. E. A. Winslow, Dr. P. H.

F. A. Davis Company, Philadelphia: *Diabetes: Its Treatment by Insulin and Diet*, by Orlando H. Petty, A. M., M. D., F. A. C. P. *Textbook of Histology*, by Eugene C. Piette, M. D. *Eye, Ear, Nose and Throat for Nurses*, by Jay G. Roberts, Ph. G., M. D., F. A. C. S.

Nervous and Mental Disease Publishing Company, New York and Washington: *Medical Psychology, The Mental Factor in Disease*, by William A. White.

MacCrellish & Quigley Company, Trenton, New Jersey: *Fifty-third Annual Report of the Department of Health of the State of New Jersey, 1930.*

Scientific Authors' Publishing Company, New York: *Text Book of Physical Therapy*, by William Benham Snow, M. D.

New Orleans Medical

and

Surgical Journal

Vol. 84

AUGUST, 1931

No. 2

NEWER DEVELOPMENTS IN CANCER RESEARCH.*

CHARLES F. GESCHICKTER, M. D.†

BALTIMORE, MD.

The inherent mystery and the prize of fame and riches associated with the cancer problem has made this field of medical endeavor a most attractive one, both for scientific investigators, literary speculators and popular fancy. As the result, the volume of scientific work, the mass of suggestions and trials submitted from all sources makes it exceedingly difficult to rise above confusion and to present a clear summary of what is really being attempted of worth and to evaluate what has actually been achieved to date.

Fortunately, despite the great diversity within the subject itself there are a few outstanding and definite problems under which all phases of cancer work may be considered. These outstanding problems relating to the field of cancer research are:

- 1—What is the nature of cancer?
- 2—What is its cause?
- 3—How is cancer to be diagnosed?
- 4—How is cancer to be treated?
- 5—How is the profession and public to be educated in regard to this disease?

While dwelling briefly on all of these questions, we propose to stress the current conceptions in regard to the nature of cancer—since according to the concepts of its mode of origin, the control or cure of this disease must be planned.

NATURE OF CANCER.

No matter how reliable the compass nor how experienced the pilot, the captain of the ocean liner never rests assured of his course until a definite land mark is sighted and so in cancer investigation, no matter how scientific the work, and regardless of the progress made, there will never be unanimity of opinion and assurance of the nature or cause of cancer, until the entire problem is solved. Nevertheless, it is possible to outline a definite direction in the work already accomplished in solving the nature of the disease and to make definite statements for which a consensus of opinion and adequate evidence will not be lacking.

First, although specific infection, chronic irritation, injury and repair, biochemical forces, heredity and biological growth have been repeatedly presented by theorists as fundamental to the cause of cancer, the weight of scientific work today has centered more and more about the problems of biological growth as essential to an understanding of the disease. There still exist nevertheless laboratories of repute where the blood of cancer patients or the tumors themselves are being cultured bacteriologically for specific cancer organisms. There are also laboratories of the first order that are interested in producing tumors ex-

*Annual Oration, read before the Louisiana State Medical Society, April 14, 1931, New Orleans.

†From the Surgical Pathological Laboratory, Department of Surgery—Johns Hopkins Hospital and University.

perimentally in chickens, by cell free filtrates (so-called Rous chicken sarcoma) in the hope that a filterable virus or allied agent will be isolated that will prove fundamental for cancer causation. But even if the very improbable and chimerical cancer germ could be found it would be only secondary in importance to the causation of the disease, because our knowledge of cancer has already passed the stage of drawing an analogy between it and simple infection. Moreover, the fact that cancer investigators may produce cancer at will experimentally, by painting the skin of mice with compounds of tar, directly opposes the viewpoint of these bacteriologically minded investigators. Certainly infection is not essential to the production of the disease, and infection alone will never account for true tumor formation.

The microscopic structure of cancer which tends to duplicate the design and function of the tissue in which it arises detracts from the importance of external agents in the production of the disease and emphasizes the fact that cancer in the human body is more or less an intrinsic problem and that tumor growth in general is largely dependent upon the normal biological characteristics of the tissues from which the tumor arises. The weight of scientific opinion therefore, places the responsibility for cancer fundamentally upon the individual and the portion of his body, where the tumor arises, rather than upon some outside agent. Not only is some constituent tissue of the body held responsible for the disease, but it is generally agreed that the disease begins locally and therefore it is some particular tissue at a particular age, and at a particular site that makes possible the beginnings of cancer. This is another way of saying that the age incidence and localization which in long years of clinical experience have been found peculiar to each separate form of clinical neoplastic entity have a definite significance.

The recognition of the local beginnings of cancer has been achieved with a high degree

of accuracy for many types of tumors and is of considerable scientific and practical importance. It is forming the basis of an increasingly widespread campaign of education among the profession and the public in regard to these pre-cancerous, or early cancer spots which, when recognized and treated early, lead to the prevention or cure of the disease. Not only is the profession and public learning to suspect the origin of cancer from such birth marks on the skin as moles and angiomas; chronic lesions in the mouth such as white patch or leukoplakia; ulcerating or weeping scabs (keratoses) on the face or hands, polyps in the nose, colon, or rectum; ulcerating lesions of the cervix in women who have borne children; warts, or irritation of the female nipple; congenital cartilaginous outgrowths on the bones, etc., but in the light of recent research it is now understood why such birth marks and why such chronic sores constitute a likely focus. The scientific reasons may be formulated thus:

Cancer in the human body begins always in one of the three ways:

1. In an embryonic defect or local growth anomaly arising in fetal life or early childhood. (Moles, angiomas, exostoses, etc., are thus explained as foci for the disease.)

2. In a normal growth zone active after birth in a phase of normal development. (Giant cell tumor, chondrosarcoma of bone, chorio-epithelioma, etc., take their origin in such growth zones.)

3. In a normal growth zone activated through healing and repair. (Keratoses, warts, chronic ulcerations, etc., are examples of this.)

Such anatomical and physiological foci in the body offer a foothold for the beginnings of cancer because here cells in a normally undifferentiated state repose and retain an inherent power for differentiation and further growth. In other words, there is a common factor behind these foci. These are places in the human body where nature

leaves her building stones behind—either unintentionally as an anomaly, or intentionally for purposes of further growth or repair; and from these building stones the distorted and perverted structure of cancer is reared.

These fresh and unused building stones, without which cancer cannot arise are not left behind at random in the human make up, but are largely determined in location by the pattern of development of the particular organ, which in turn is predetermined by evolution and embryology. Fundamental studies into these normal patterns of development now underway and conducted over a period of three years in the Surgical Pathological Laboratory of the Johns Hopkins Hospital and University in conjunction with the Carnegie Institute for Embryology associated with the medical school have definitely proved the relationship between the localized pre-disposed cancer spot harboring the persistence of juvenile cell groups (with power for differentiation and continued growth) and cancer.

This fundamental basis for the cause of cancer has been demonstrated by evidence along four major lines.

1. The growth zones of the organ or embryonic defects coincide by age and site with the localization of the tumor growth.

2. Microscopic examination reveals the embryonic cell or unused building stone at both the normal site in the normal individual before any tumor arises, and the identical cell groups in an activated state at the same site after the tumor or cancer has arisen.

3. Moreover, the manner and sequence in which the cancerous components of the tumor develop repeat in an identical order and pattern, the normal developmental structure of the part and tissue involved. This is the most recent and significant finding and is made clearer by the illustrations shown below.

4. Finally, experimental evidence demonstrates that the normal growth zones of

juvenile cell groups can be stimulated by various means and made to mimic the actual cancer formation.

These laws for cancer growth, and the demonstration of the role they play in the origin and development of tumor are best illustrated by considering their application to specific tumors.

The duplication in pattern and sequence by the tumor formation of the normal embryology and evolution of the part involved by cancer is most convincing. That a living growth which runs so counter to the welfare of the organism in which it begins should follow in the footsteps of the embryologic and evolutionary development normal to that organism is unlikely, unless these very evolutionary forces themselves were concerned in the new growth.

The connection between tumors of the giant cell group and the histogenesis of cartilaginous ossification at the normal growth zone of the epiphyseal line in bones, was established by an analysis presented in the *Archives of Surgery*, August, 1929, Vol. 19, pp. 169-271 "Osteitis Fibrosa and Giant Cell

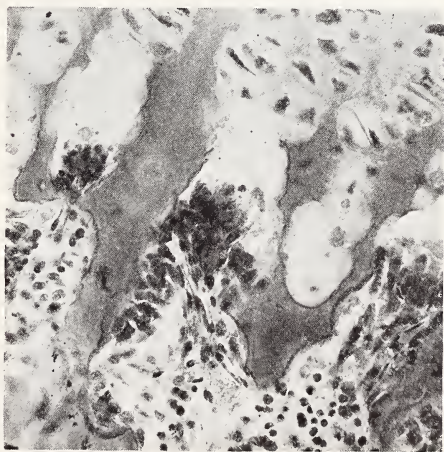


Fig. 1A: Comparison of the histogenic cycle in giant cell tumor with the normal proliferation of giant cells occurring at the epiphyseal line. Figure 1A is a photomicrograph of the epiphyseal line of a monkey fetus at term. Calcified cartilage is being perforated by large multinucleated elements carrying in their wake newly formed capillaries.

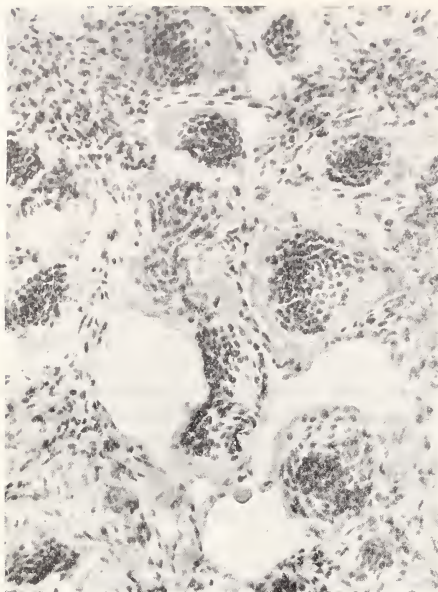


Fig. 1B: Photomicrograph showing numerous giant cells occurring in a benign giant cell tumor in an epiphysis. This proliferation of giant cells in the neoplasm duplicates that in the foetus.

Tumor" by Geschickter and Copeland. The fact that these lesions were proved to have their fundamental basis in a phase of the normal development of bone is the crux of this study. For, this analysis permits the conclusions that giant cell tumors can arise only at those sites in the body, and during those age periods when a proliferation of giant cells represents a normal transition in osteogenesis (Fig. 1). In other words, these lesions which are true neoplasms are dependent in their origin upon a normal phase of tissue differentiation. Only when such a transition is normally occurring in the form of the resorption of calcified cartilage near an epiphyseal line does the possibility present itself for the development of such new growths.

This conclusion in regard to giant cell tumor suggested that many neoplasms, whether benign or malignant, may involve, and have their origin in, a normal phase of development at the time when a growth im-

petus is manifested by an unstable phase of tissue differentiation, and other tumors of bone were studied from this viewpoint.

Osteogenic sarcoma of the chondromyxosarcoma type and benign osteochondromas occur at the transition point where tendons attaching directly to bone maintain a center of cartilaginous ossification to co-operate in the formation of a normal bony protuberance acting as an anchor for the tendon. The chondromyxosarcoma or osteochondroma arising here duplicates in its histology the normal transitions in tissue differentiation found in the tendon end as shown in the accompanying illustrations, (Fig. 2). These primarily malignant growths forming at such sites have a specific age incidence and occur in the post-adolescent growth period.

Paget's cancer of the female nipple occurs at a transition point where the basal cell layer of the skin in the nipple forms a transition into the lining cells of the lactiferous ducts. The earliest stages in the new growth reproduce the histogenesis of the breast *anlage* observed in the human embryo (Fig. 3). The disease is most prevalent after the menopause suggesting a reformation of the line of junction at this point after the change of life.

Among the dental tumors the adamantine epithelioma occurs most frequently in the neighborhood of the molar teeth at an age period which corresponds roughly to the time of the second dentition (15 to 20 years). This neoplasm arises from the enamel organ and, under the microscope, the transition from basal cells to columnar epithelium indicate an origin in, or close relationship with, the normal histogenesis of the tooth crown (Fig. 4).

The fact that a fundamental basis in normal tissue differentiation has not yet been demonstrated in the majority of tumors does not detract from the soundness of this interpretation but rather reflects the rarity and difficulty of making a thorough analysis of the histogenesis of specific varieties of neoplasms.

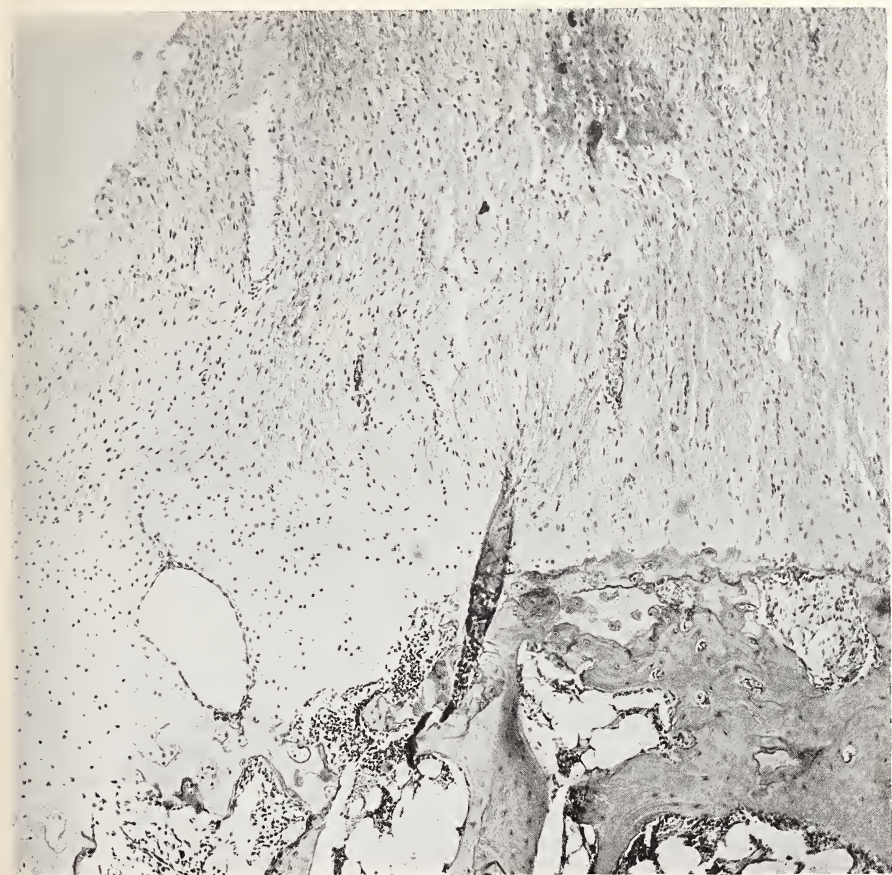


Fig. 2A: Comparison of the histogenic cycle in a benign osteochondroma with the growth center at the junction of the quadriceps tendon to the tibial tuberosity. Figure A is a photomicrograph showing cartilaginous ossification intervening between tendon and bone, in the quadriceps tendon. This is a normal growth center occurring in tendons that attach directly to bone and the transition from early connective tissue to cartilage to bone seen here is the basis for the osteochondroma shown in Figure 2B.

Such a demonstration of the laws of development for tumor becomes increasingly more evident and important as additional types of tumors are analyzed. There is a definite need for this form of analysis—where the clinical features of age, site and behavior are coordinated with the tumor pathology and the normal pre-existing anatomy of the part.

For, it must be conceded that the foundations of tumor growth are laid in normal

anatomy and embryology—by cell groups or building blocks set aside either accidentally or purposely for replacement or further development of the tissues, and that the tumor growth involves the actual mechanisms of the developmental forces themselves. With this fundamental anatomical conception of the beginnings of cancer, it is important to learn if possible, what precipitates these more naive, unsophisticated and persistent juvenile portions of the human body into tumor formation.



Fig. 2B: Photomicrograph of an osteochondroma or benign exostosis occurring at the point of tendinous insertion into bone. The connective tissue of the tendon overlies the cartilaginous portion of the growth giving rise to foetal cartilage which is being transformed to adult and calcifying chondral tissue. Beneath is a proliferation of cancellous bone. Compare with Figure 2A.

CAUSES OF CANCER.

First it is known, that the cause or precipitating factor is not one—and not to be elucidated by a single discovery—but that the factors to be demonstrated are as numerous and as variable as the influences to which these more primitive cell groups of the body may respond.

1. It is known that, among other things, unusual growth tendencies, some of which may be inherited, as the cartilaginous tumors in hereditary exostoses, may stimulate such primitive cell groups into tumor formation.

2. Again, endocrine disturbances, such as hyperparathyroidism, through influence

on the calcium and phosphorus metabolism in the bone, may give rise to multiple giant cell tumors in the skeleton.

3. And again, infection or injury directed at certain points, such as gonorrhea producing the spurs at the heel in the growth center of the tendon, or a blow starting an osteogenic sarcoma in the growing metaphysis of a young adult, may be instrumental in the production of neoplasia.

4. And the persistent demands for repair by chronic irritation and ulceration may be followed by cancer formation.

But regardless of the number and variety of contributory causes that may be cited in

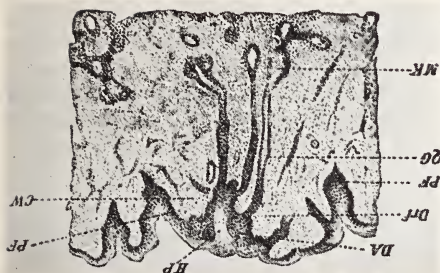


Fig. 3A: Comparison of early Paget's cancer of the nipple with early development of the breast at the nipple site in the human embryo. Figure 3A shows the development of the breast in the embryo from the basal cell layer of the epidermis at the nipple site. The down-growing cords of cells are forming ducts which simulate the down-growth of cancer tissue shown in Figure 3B.

the many clinical forms of cancer, two important truths stand out as a result of careful pathological analysis and experimentation:

First, whether general or local influences are operative, the cancer producing effect only results when a specific locality capable of cell differentiation and further development is involved.

Second. Experiments demonstrate the converse of this statement in that a single etiologic agent operating alone will never produce a true tumor.

Thus the experimental injection of parathyroid extract will produce an area of giant

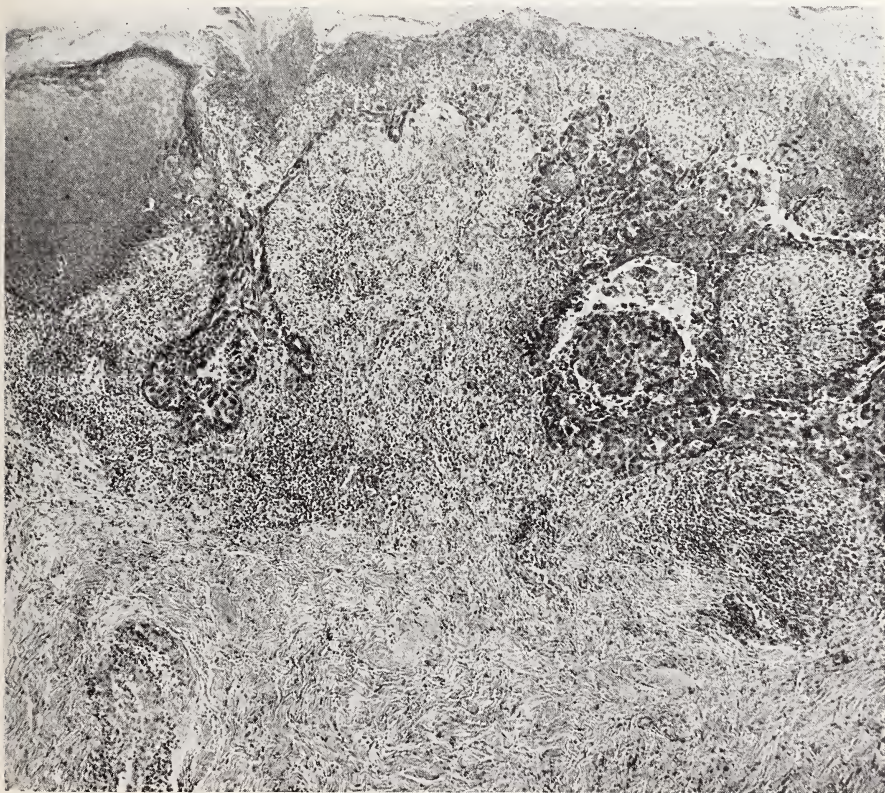


Fig. 3B: Photomicrograph of cancer cells proliferating from the basal cell layers of the skin and growing downward to produce ducts dilated with cancer tissue, in Paget's disease of the nipple.

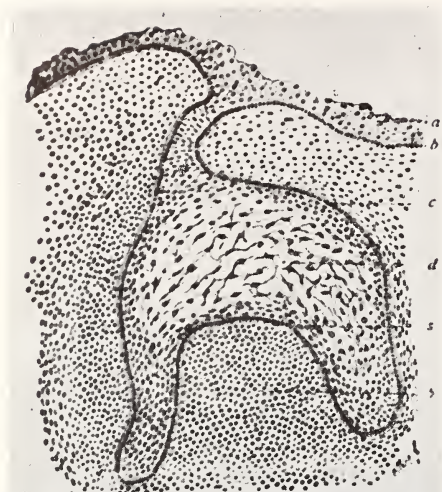


Fig. 4A: Comparison of the histogenic cycle of adamantine epithelioma with the embryology of the tooth crown. Figure 4A shows the formation of the tooth crown from the enamel organ in the embryo. Note how the transition of cell forms resembles that seen in Figure 4B.

cells in the bone, but will not produce a true giant cell tumor. Trauma to a bone at a growth zone will stimulate a certain degree of overgrowth but true cancer formation does not occur. Apparently the only exception is the production of cancer of the skin in mice after the application of coal tar. But here many repeated applications over a long period of time are necessary, which would seem to indicate that the irritation of the tar must await the development or occurrence of some secondary condition before giving rise to cancer.

Although the entire picture is not complete, what has already been accomplished to date is sufficient to permit of important clinical applications, pointing the way for the control of the disease in its early or pre-cancerous stages and indicating the lines for further investigative work.

The fundamental viewpoint embodied in the conception of cancer as a local tissue change concerned with cell growth here elaborated, is old and wide-spread. The reasons why an analysis of the evidence in

favor of this conception and its application has not been conducted more energetically and along more thorough and broader lines is quite obvious. The bulk of cancer research either takes the form of isolated and abstract animal experimentation or is a gold rush, a short cut to a cure.

Too often the horizon of the experimenter is confined to his own particular laboratory without clinical contacts or constant touch with the clinical information in regard to cancer as it appears in human beings and rarely rises above the intricate manipulations of his chosen experimental method. Or he is a convert to the realms of research who has been newly imbued with the hope of discovering a cancer cure.

A co-ordination and bringing together of the disconnected efforts along the various lines of embryology, pathology, endocrinology, and clinical investigation as well as the more abstract studies of biophysics and biochemistry are not only necessary to the cancer problem; but workers in these separate fields need the stimulation as well as the aid of such a variety of combined studies. Until we are ready to divert a definite portion of clinical effort in cancer to the

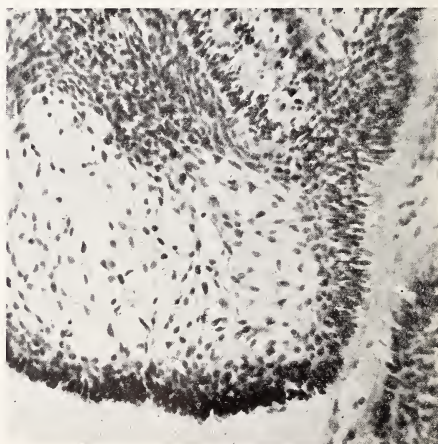


Fig. 4B: Photomicrograph showing the transition of basal cells to enamel epithelium of the columnar type, typical of adamantine epithelioma.

ends of research and until we learn to expect more of guided and coordinated effort in scientific research, the solution of the cancer problem is doomed to lie fallow in the middle ground between the dilettant of pure science on the one hand, and the amateur cure-seeker on the other. We are expecting today too much of individual and chance discovery and not enough of concerted, well directed and organized effort.

DIAGNOSIS OF CANCER.

Methods in the diagnosis of cancer may be divided into systemic and local in scope. The systemic methods aim at discovering some change in the blood or body fluids or the excretions of cancer patients which will indicate the presence of cancer when the tumor is not discernible or when the character of the growth is in doubt. Local methods are aimed at an examination of tissue removed from the actual tumor itself and endeavor to demonstrate by measurements or reactions the presence of cancer or its absence in the tissue examined.

Systemic Methods of Diagnosis: The newer investigations in cancer diagnosis are largely in the systemic field. Many attempts have been made to devise a type of test which would show the presence of cancer in a patient when a small sample of blood is obtained for diagnosis. These tests have largely been modelled after the Wassermann of Kahn test for syphilis, but to date none have definitely proved of clinical value. More hopeful results have been obtained by tests which rely upon an examination of the urine of cancer patients. Ferguson[‡] at the Memorial Hospital in New York has recently shown the presence of a pituitary substance in patients suffering with malignant tumors of the testicle which is excreted in the urine in detectable amounts. At present, however, the test only applies to certain types of tumors found in the genital

tract. One laboratory is studying the excretion of sulphur which is supposedly higher in cancer patients. This latter test is not yet on a clinical basis.

Local Methods of Diagnosis: There are two chief methods of diagnosis applicable locally to cancer tissue. One of these is microscopic, the other metabolic. Microscopic methods rely either upon the finding of unique structural characters in the cancer tissue such as peculiarities in the cell nucleus, or upon unique staining reactions of the tissue when certain dyes are applied. The microscopic method surpasses all other modes of cancer diagnosis in accuracy and is the standard for comparison. Unfortunately it is not absolutely accurate and it has a large personal equation dependent upon the proficiency of the examiner. For this reason there is a definite demand for a differential stain which will make the presence of cancer certain by its color reaction.

New metabolic methods of diagnosis have been attempted on cancer tissues which endeavor to measure either the formation of lactic acid or the reducing power of the tumor. (The rate at which it will withdraw oxygen from a substance or the equivalent). Both lactic acid formation and the reducing power of cancer is higher than in most normal or diseased tissues, but not absolutely so in all cases. In addition the biochemical methods of measurement have a factor of error, because normal defensive cells are always crowded in around the tumor cells. For this reason the newer experiments attempting to measure the biochemical properties of cancer are endeavoring to use tissue cultures of pure tumor cells rather than cancer tissue.

Tissue culture of animal tumors is not new, the successful and continuous growing of human cancer cells is however, more recent. Among other things these newer studies have shown that there are different growth properties in cancer and sarcoma, that a peculiar variety of tri-partite mitotic division takes place in malignancy that re-

[‡]Preliminary note on a New Method of Differentiating the Testicular Tumors by Biological Means by Russell S. Ferguson, Helen R. Downs, Edward Ellis and Mary E. Nicholson; *American Jour. of Cancer*, 15:835, 1931.

sults in bi-nucleated tumor giant cells, and emphasize again the ad-mixture of normal reactive cells and phagocytes always present in actively growing tumors.

The study of properties peculiar to the malignant cell, and of the metabolic and serological findings in cancer patients promises to be one of the most fruitful fields of cancer investigation in the near future. The probabilities of the discovery of various tests which will increase the accuracy and ease of cancer diagnosis seem particularly likely in the not remote future. In addition it is not at all unlikely that the finding of specific properties in tumor tissue will provide fairly readily therapeutic applications.

TREATMENT OF CANCER.

The American Society for the Control of Cancer within the past few months, in a communication given to the daily press, stated that there exist today only three proved and effective methods of treating cancer: surgery, radium and roentgen-rays, and that to be effective these must be applied promptly and competently after an early diagnosis. These three standard methods of treatment, surgery, radium and roentgen-rays, have had no adjuncts added in recent years, with the exception of improvements of the deep roentgen-ray machine.

The science of electricity has recently discovered how to obtain and control voltages, exceeding 1,000,000, and this so-called artificial lighting is finding application to the field of deep roentgen-ray therapy in cancer cases. Three of such high voltage roentgen-ray tubes are in existence, one in Los Angeles, one in New York and the other in Washington, D. C. It is too early to predict the clinical results that will be obtained by these more powerful roentgen-ray devices, but apparently the present generation

is about to witness the perfection and ultimate limitations of irradiation as applied to cancer, in the same manner that the last generation witnessed limitations of radical surgery as applied to cancer. In all probability, irradiation, like surgery, will leave the ideal treatment for all types of cancer early and late, still unattained. It is important to emphasize once again in discussing these accepted types of cancer treatment—as well as alluding to the more exaggerated and unfounded claims of extracts, serums, metals, and colloids as cures for cancer that the efficacy of any proposed cancer treatment must be judged by:

1. Its use in cases of cancer which have been microscopically proved.
2. Its use in cases which have passed the local stage of tumor growth and have recurred or spread to other parts of the body, and
3. Its capacity to produce permanent cures in patients with the above type of tumors who have remained well five years after the beginning of treatment.

THE EDUCATION OF THE PROFESSION AND THE PUBLIC IN REGARD TO CANCER.

It is now established that cancer can be cured if properly treated in its earlier stages while still localized, and largely prevented, if adequately dealt with in its precancerous state. Therefore, teaching the public to come early by stressing periodic health examinations and emphasizing the first warnings of malignant disease and teaching the profession higher standards of promptness and accuracy in cancer diagnosis is the accepted order for today, and tomorrow's medical ethics. Already New York, Massachusetts, Canada, New Orleans and many other states and cities have taken part. The movement will soon be national in scope.

ACUTE, AND CHRONIC OSTEO-MYEELITIS.*

E. D. FENNER, M. D.,

NEW ORLEANS.

Is any apology necessary for presenting once more the well-worn subject of acute osteomyelitis, and its sequel, chronic osteomyelitis? The literature is teeming with admirable descriptions of the disease. The story of its terrible mortality, its symptoms, and its treatment are within reach of your fingers in any medical library. But, somehow or other, the lesson has not sunk in. The high mortality continues; in patients who survive the stormy invasion, the transformation of acute osteomyelitis into chronic osteomyelitis drags its slow length along through years, punctuated by repeated operations, and often terminates in crippledom; in spite of admonition, warnings, insistence, men—and pretty good men at that—continue to turn blind eyes to a clinical picture by no means difficult to recognize, and this at the onset of the disease when recognition, and clear eyed, bold action are so vital to the safety of the patient.

Acute osteomyelitis is a juxta-epiphyseal infection of the diaphysis of the long bones by the staphylococcus aureus. Occasionally we see an acute osteomyelitis due to streptococcal, or other infection, but these cases are rare. The bacteria are carried in the blood stream, and deposited in the diaphysis near its extremity. Their source is distant, a sore throat; an infected tooth; a skin infection, such as an impetigo, a furuncle, an infected abrasion. The blood infection is usually transient, and within a brief time blood cultures will be negative. If a bacteriaemia persists, you have a very bad case, and the patient is not apt to recover. Spreading of the infection within the bone to the epiphysis is not common, owing to the firm attachment of the periosteum at the epiphyseal line, and to the protective barrier

of this layer of cartilage. Rapid extension of the infection of the diaphysis, on the other hand, is inevitable, and is in direct proportion to the delay in affording an exit to the pus locked up within the bony shell.

The deposit of the staphylococci in the bone is favored by trauma. A large percentage of cases give a history of slight injury shortly before the onset of the disease. Age is a real factor, since the great majority of cases are seen in the young. Probably 80 per cent are less than 16 years, and more than 50 per cent are below 10 years of age. Perhaps because of their rougher play, and consequent greater liability to injury, boys are more frequent victims than girls. Lowered vitality, previous illness, diabetes, are other causative factors sometimes mentioned, but it is certain that many cases have been normally robust.

The symptomatology is characteristic, and remarkably definite. Following an injury, not considered as having any significance at the time, a young child is seized with a violent pain in the neighborhood of one of his joints—the knee, the elbow, the hip, or the ankle. Fever develops rapidly, perhaps attended by a chill. The pain is very severe, and is at first pretty definitely restricted to a small area near the joint. Tenderness to pressure is likewise localized to a small region, near, but not in the articulation. Toxemia develops rapidly, and the patient is plainly very sick. Soon there develops swelling, but this too is near, but not in the joint. Attempts to move the limb give excruciating pain, but by extreme gentleness you can usually convince yourself that the articulation itself is not the seat of the pain. It is close by, but not actually in the joint. The leukocyte count rises rapidly to 20,000 or more. Hot applications increase instead of moderating the pain. The toxemia steadily grows more threatening and the patient may be delirious. For at least a week the roentgen-ray picture is negative. Meanwhile, the whole limb may have be-

*Read before the Orleans Parish Medical Society, March 9, 1931.

come swollen, and if the child does not succumb to the toxemia, he is, at least, in a parous state. After a varying number of days pus breaks through the periosteum, accumulates in the soft tissues, and an abscess is unmistakable. During this crucial period the doctor has been marking time, but now at last he finds something to do. He timidly makes a small incision through the skin, and evacuates the pus. But the fever and toxemia are relieved for only a brief period, and the patient is again on the toboggan. A second roentgenogram is now taken, and bone changes are only too evident. At last, we have a case of osteomyelitis, and some sort of effort is made to relieve the pressure of pus within the bone. The patient perhaps survives, but extensive necrosis of the shaft proceeds, and he passes into the class of chronic osteomyelitis, undergoing one operation after another, and spending years of chronic invalidism.

Now why should this be the usual history of these cases? The clinical history is clearer even than that of an acute appendicitis. It has been described again and again with vivid emphasis. The combination of sudden, agonizing pain in the neighborhood of a joint, but not in the joint itself, in a young subject, following a trivial injury, with evidence of a distant focus of infection; the abrupt rise of temperature, with severe toxemia; the early onset of swelling near the joint, but not in the articulation itself; the localization of exquisite tenderness near the joint; the high leukocyte count; this almost unvarying group of signs and symptoms should point straight to the signboard marked acute osteomyelitis. But, do they? You all know how persistently the doctor will turn to rheumatism as an explanation. Sub-acute rheumatism of a single articulation is not uncommon in the young, but it is no violent and stormy affair like this. It causes no high fever, no desperate constitutional depression, no high leukocyte count; whatever swelling and pain are present are in the

joint, not near it. Acute rheumatic fever is seldom monarticular, but involves a number of articulations. The swelling is in the joints themselves, the pain is there, too. Fever may be high, but toxemia is not suddenly severe. Acute infectious arthritis, for instance, the gonococcal, presents a similar picture of unmistakable joint trouble. We may dismiss such diagnoses as typhoid fever, blood poisoning, and the like, since they have no meaning in connection with such a history as is given by these patients. They are mere camouflage to stall off a gullable family.

The outstanding and disheartening feature in the history of acute osteomyelitis is delayed diagnosis, and delayed treatment of the right sort. The average doctor is not likely to encounter many such cases in his practice, and the picture of this virulent bone infection is apt to be obscured by his more ordinary experiences. Muscular spasm which fixes a joint in flexion, and is accompanied by severe pain and fever, suggests joint trouble to him. Within the joint and near the joint are not far apart. Experience has taught him that frequently joint troubles will get better if they are given salicylates and rest. Meanwhile, his attention is so fixed upon the joint that he pays too little attention to the general condition of his patient. A negative roentgenogram confirms his hesitation. The violent constitutional disturbance, the intense local signs and symptoms, vivid red signals of danger, are disregarded until the accumulation of pus beneath the skin suggests another roentgenogram, and bone destruction is apparent.

Now what is the lesson to be learned in regard to this formidable bone infection? In the face of the clinical picture already described—sudden, violent pain and tenderness near a joint, with high fever, severe toxemia, localized swelling, and leukocytosis, in spite of a negative roentgen-ray report, lose no time on fomentations or watchful waiting. Cut down upon the bone over the tender spot, incise the periosteum,

and drill a hole in the bone. Depending entirely upon how many days it has taken you to screw your courage to the drilling point, pus may be encountered beneath the skin, beneath the periosteum, or only after you have drilled the bone. After you have taken up your knife and incised the skin do not rest satisfied until you have made an opening in the bone as we'll. When pus wells up from the drill hole, enlarge the opening until you are certain that drainage is adequate. See that the incision through the soft parts is large enough to expose the bone readily. Dry the wound, and flood it with tincture of iodine, followed by alcohol, and loosely pack the wound wide open with strips of sterilized vaseline gauze. Introduce no sutures, but pack the wound wide open. Apply a heavy gauze dressing, and encase the limb in a plaster of Paris splint to secure absolute immobilization. From now on, do not worry about the wound, but watch the patient. If the toxemia abates, and the fever subsides, as they are apt to do, the wound need not be disturbed for days or even weeks. The only indications for interference with the plaster of Paris case, and the gauze pack, are persistence of fever and toxemia, and a stink arising from the limb too great to be endured. If fever and toxemia persist, it is fair to assume that drainage is still inadequate, and that a wider opening of the bone is needed, and this should not be delayed too long. In the absence of such symptoms, the longer the wound can be let alone the better. When you conclude that a second dressing is advisable, although the patient is comfortable, free of fever, and of toxemia, you will find the affected region soaked with stinking pus, but filled with healthy granulations. Cleanse the skin with alcohol, flood the wound cavity with tincture iodine, followed by alcohol, and repack with the vaseline gauze. Put on a new immobilizing plaster of Paris case. Let this alone as long as you can stand the smell.

This is the Winnett Orr method of treating osteomyelitis. In acute cases the bone

is opened widely enough to ensure free drainage. If this has been done early, the process may be arrested; where there has been considerable delay relief of tension may have come too late to prevent extensive necrosis of the shaft. The latter fall into the chronic stage, and a secondary sequestrotomy will be needed. At this time expose the bone freely, remove the whole roof of the diseased area, together with any sequestra, saucerize the bone cavity, and pack as before.

Many years of disappointment with older methods, and the results obtained within the last few years with Winnett Orr's method, have completely converted me to his following. The saving in dressing material, in the surgeon's time, and in suffering to the patient, which results from these infrequent dressings, are not to be lightly dismissed. What matters a bad smell in view of the extraordinary progress of the case towards cure? Winnett Orr himself has suggested that some sort of defensive mechanism was set up by his combination of wide open drainage, subsequent non-interference, and perfect immobilization. A bee has expressed the opinion that the conditions created resulted in the development of a bacteriophage.

Wilhelms has taught us that suppurating joints, opened widely to ensure drainage, with drainage tubes or gauze packs absolutely forbidden, and frequently mobilized to pump out the pus, could be restored to perfect function and freedom of motion. Winnett Orr, recognizing the differences of structure in the parts concerned, has shown us that infected bone could be induced to heal by adequate drainage, infrequent dressings, and perfect immobilization. To both these men the profession owes a debt of gratitude.

DISCUSSION.

Dr. Urban Maes (New Orleans): Dr. Fenner has left me little to discuss for the reason that he has already considered in detail the most important fact about osteomyelitis, the necessity of its early diagnosis. If that fact were borne steadfastly in

mind, there would be no necessity for discussing the treatment of Winnett Orr or the treatment of Baer, but since it is very generally ignored, the management of late cases always forms a large part of every symposium on the subject.

A few years ago I looked over the records of Touro Infirmary, and I found, in analyzing the cases of osteomyelitis, that the diagnosis had been missed in practically every instance until bone destruction and constitutional symptoms were evident. Fifty per cent of the cases were diagnosed as toxemia, and the other diagnoses included articular rheumatism, typhoid fever and tuberculosis. In almost every case the diagnosis was missed because the first roentgen-ray studies were negative, and Dr. Fenner has very properly emphasized the fact that mistakes are going to occur just as long as the roentgen-ray is relied on for diagnosis, because, in the early stages of the disease, bone destruction has not occurred and the roentgen-ray is always negative.

Some years ago I made the point before this Society, in a similar discussion, that it would really be a conservative policy to explore every case in which we suspect osteomyelitis, for the reason that an exploration does no harm while delay in treatment always results in prolonged disability, if nothing worse. An elaborate armamentarium is not essential; a scalpel and a ten cent carpenter's gimlet is all that is necessary. Nor is the procedure difficult; it amount to nothing more than the boring of a few holes in the proper place in the diaphysis, with the proper precautions, of course, to protect the epiphysis.

At the same time I called attention to the facts which Dr. Rives has alluded to in a previous discussion. At that special time we had four patients in our ward whose aggregate disability, from failure to diagnose the disease promptly, was over one hundred years. I note in a recent issue of *Surgery, Gynecology and Obstetrics* that Brunschwig reports three patients with an aggregate disability of over fifty years. Two of these cases required amputation, and in three other cases he reports, in which he attempted conservative treatment the patients disappeared from his observation still with suppurative infections.

Certain points about osteomyelitis must constantly be borne in mind:

1. That the disease is a clear cut entity, with definite symptoms which follow in regular sequence and which are recognizable within a few hours after the onset.

2. That failure to recognize the disease in the early stages invariably results in pathology of the

chronic type, with long periods of disability in some cases, and with a fatal outcome in others.

3. That the local manifestations of the disease are extremely important in diagnosis, for the reason that the constitutional symptoms mimic the symptoms of other diseases.

4. That dependence on the roentgen-ray for the diagnosis of acute osteomyelitis is a grave error, for the reason that the roentgen-ray findings are always negative in the period when treatment is of most avail.

I have had practically no experience with the methods of treatment advocated by Winnett Orr and by Baer, but it strikes me as most unfortunate, in the face of all that is known about osteomyelitis, that it should ever be allowed to progress to the stage in which such repugnant methods are necessary. Orr lets his cases progress to the point of putrefaction, and perhaps, if you can endure to live around the patients, that is a satisfactory mode of treatment. Baer goes even further, in that he has maggots, and trained maggots, at that, put into the wound to eat out the necrotic tissue, a procedure, again, that may be curative but is certainly unsurgical. Neither method, however, as I have already said, would ever have to be invoked if the points that Dr. Fenner has made were borne constantly in mind.

Dr. E. S. Hatch (New Orleans): I would like to emphasize what Dr. Fenner has said about the importance of early diagnosis and say just a few words about Dr. Orr's treatment.

In the older methods of treating osteomyelitis the doctor and the patient both had a hard siege, the doctor hating to hurt his patient and the patient dreading the visit of the doctor.

By using Orr's method, the bone cavity is cleaned out, packed with sterile vaseline gauze strips; dressing applied and a plaster cast put on.

It is my habit to let these casts alone for from four weeks to six weeks, as patients do not have any pain, discomfort or temperature, but they do have a very bad odor from the accumulating drainage. When the cast and dressings are removed after several weeks the wound presents a healthy granulating surface.

Dr. E. Denegre Martin (New Orleans): I have not very much to add, except to emphasize what Dr. Fenner has said about early diagnosis. Some years ago when I had the Colored Clinic, I had many to come in as chronic cases.

In my own practice I have seen three cases first diagnosed as typhoid fever and treated as such

for six weeks. Results in these cases: resection of left hip joint, resection of right ankle joint, and involvement of every bone in the body. I was just thinking that had we used Orr's treatment on these cases we would have been unable to get in the house at all on account of the odor.

In operating on these cases we must get rid of the infection at the time of operation. There would be little danger if you curetted these cases thoroughly, but they will have high temperature if you pack them. Carbolic acid solution strong enough to destroy bacteria will destroy tissue. I believe, if you get rid of the infection in the beginning, any treatment will do.

One thing to be avoided in all treatments is redressing cases too often. Every time you dress these cases you are very apt to delay healing and I have made it a rule never to cleanse a wound unless necessary.

We must differentiate from other diseases. There is always pain around the joint. I have seen cases where pain was only in the shaft. A few years ago I was called in to see a case of pneumonia. I discovered that the child had osteomyelitis. The problem was to wait until the child was well of the pneumonia when it might be too late. So I drilled two holes about $\frac{1}{4}$ inch and allowed the pus to escape and warded off the danger until the child was cured of the pneumonia when I finally drained and curetted the cavity.

Dr. A. C. King (New Orleans): I do not think this subject ought to go without further discussion.

Dr. Fenner, in describing a while ago why these cases became chronic asked the pertinent question of "why" this occurs. There seems to me to be two reasons: One is the patient and the other is the doctor. Oftentimes, the patient will diagnose his condition as rheumatism and the disease will go on for several days, progressively getting worse before the physician is called in. When the doctor does arrive, he concurs in the diagnosis of rheumatism or typhoid fever, and the disease gets worse until much damage has been done.

Dr. Maes has made the statement that it is a plain open thing and easy to diagnose. To the man who has had considerable experience I will agree that it is. Appendicitis was an open and easy thing for John B. Murphy, but not to the general practitioner, with the result that many cases went on to death unrecognized. In osteomyelitis, the profession as a whole is up against the same problem. If we were called to see as many cases of osteomyelitis as appendicitis then we

could easily make an early diagnosis, which means early operation with early recovery. These three things go together: early recognition, early operation, early recovery. Late recognition means tremendous disability and in many cases loss of life.

Dr. Elizabeth Bass (New Orleans): There is one very important step in the differential diagnosis of acute osteomyelitis from other infections of the bone that has not been mentioned, namely, the examination of the urine. It has been my observation in a number of cases of osteomyelitis that the urine shows albumen and a variety of casts especially coarse granular and frequently amyloid, whereas, in tuberculosis, rheumatism and other joint and bone disturbances the urine is usually normal.

Dr. Frank L. Loria (New Orleans): Having been a student under Dr. Fenner I feel greatly indebted to him for much of my knowledge of osteomyelitis. Two phases of this subject, however, which have not yet been covered struck me as being important enough to mention.

The first is that phase in the disease frequently spoken of as metastatic osteomyelitis—or a second distantly involved bone. Whether or not the original nidus of infection has anything to do with these cases, I think, is still detactable. Nevertheless, in two such cases, observed by myself, the symptoms resulting from the second focus were considerably more mild than those resulting from the original focus, and the diagnosis was much delayed in each case. One of these cases had an original focus in the left tibia five years previously and recently I operated upon him draining pus from his right humerus. The symptoms resulting from infection in the humerus were so mild that two other men agreed the condition, even with roentgen-ray plates, was probably syphilitic. The other case was in a child about 12 years of age with a pretty severe acute original focus in the left clavicle and a later low grade infection of his right tibia, so mild that the diagnosis of bone tumor was ventured by one man. However, operation proved the presence of a low grade (Brody's) abscess.

The second phase of great importance to me, and which should probably rank as phase number one, concerns early diagnosis and osteotomy in all cases that can not definitely be proven not to be osteomyelitis. We know that properly performed osteotomy—whether the case at hand be or not be osteomyelitis—is free from deleterious results. For this reason, I do not hesitate to perform an osteotomy on every case in which I am not sure the condition is not osteomyelitis. Two very recent

experiences have impressed this idea even more forcefully on my mind.

Recently I was called in to treat a young man about 20 years of age complaining of severe pain below his right elbow and over the head of the right radius. There was a history of fracture in this region about 12 months previously. The temperature was around 103° and the onset very abrupt. The blood count showed more than 20,000 whites (made by Dr. F. M. Johns) and I was convinced I was dealing with a case of acute osteomyelitis. Accordingly, I performed an osteotomy, but the next day his fever had not subsided. On the following day a left middle ear abscess ruptured and the fever subsided. No soft tissue abscess formed at the site of the osteotomy and healing was by first intention.

Another case was that of a boy five years of age who developed pain in the right leg. His mother said he had no chills nor convulsions and that his fever was never above 102°. The blood count was 11,000 and although pressure elicited some pain over the lower regions of the right tibia this was not very marked. However, I decided to perform an osteotomy and to my surprise the culture from the bone marrow showed staphylococcus aureus and a soft tissue abscess formed as usually happens in these cases.

To reiterate I would suggest first that the matter of later distant foci of infection be kept in mind as also the relative little damage that might occur following a properly performed osteotomy.

Dr. E. D. Fenner (closing): How many thousands of articles were needed to bring the profession and the public to the point where they now are in regard to acute appendicitis? And how many thousands of articles are going to be needed accomplish the same thing in regard to acute osteomyelitis? The records of any hospital—here, in New York, in Philadelphia—will show that operation for acute osteomyelitis is usually delayed for days, often for weeks. It is going to take a great many articles to arouse the profession and the public to recognize what is, in fact, as clear a clinical picture as is shown by any disease we see.

Now when it comes to the question of what you should do, my own opinion is that any surgeon

who has gotten up the courage to operate upon a case which presents this typical picture, had better not stop at the periosteum, but should go into the bone. Pus that can run out freely does not do much harm; when it is confined, you get toxemia.

I remember passing through the operating room one day while my friend, Dr. Landry, was operating upon a case of chronic osteomyelitis, to which he called my attention. He had saucerized the bone area, put in an iodoform gauze pack, and introduced five or six good big sutures. I said to him, "Landry, if you will take out all your sutures, replace your iodoform gauze with sterile vaseline gauze strips, and pack the wound wide open, you will get a real surprise, particularly if you will put on a plaster of Paris case, and then let it absolutely alone for several weeks." He came to me in about six weeks, and said, "Fenner, I would never have believed I could get such a result as I have."

Saucerize the bone through an incision in the soft parts which extends beyond the affected bone area; cleanse the cavity with tincture iodine, followed by alcohol; loosely pack the cavity with sterile vaseline gauze; put on a plaster case, and make no change of dressing for several weeks, provided there is no fever; and when you do remove the plaster case, you will find a stinking, pus soaked dressing, but the cavity will be filled up with good, healthy granulations. Renew your vaseline pack, your gauze dressing, and your plaster case, and forget about them for another month. You are going to have cases of osteomyelitis cured in three or four months, instead of lingering on for fifty years as Dr. Maes has remarked.

One of the things that induced me to write this paper is the fact that our hospital records show that only once in a blue moon is a case of acute osteomyelitis operated on within forty-eight hours; most of them wait for days. The pus, confined under tension within the bone, produces extensive necrosis. You would not have it if the pus could have found an exit.

I sincerely hope that someone will come back here next year, and the year after that, and repeat the lesson I have tried to bring home to you.

THE TREATMENT OF INFECTIONS OF
THE MASTOIDS OF INFANTS, WHEN
THERE IS NO SIGN OF DESTRUCTION
PRESENT, WITH FRACTIONAL
DOSES OF THE
ROENTGEN RAYS.*

AMEDEE GRANGER, M. D.,†

NEW ORLEANS.

The favorable influence which fractional doses of the roentgen rays, even the small amount of these rays administered while making a radiograph, have on mastoiditis complicating middle ear disease, was observed more than two years ago while I was engaged in an intensive radiographic study of the healthy and diseased mastoids of infants.

Last December in Toronto when I presented the result of that study to the Radiographical Society of North America I made the following statement: "In a number of cases too large to be attributed to mere hazard or coincidence, patients with definite signs of infection and occlusion but not of softening and destruction of the mastoids were decidedly improved by the irradiation incidental to the making of the radiographs and went on to resolution and cure. This observation was confirmed by several competent oto-laryngologists and was especially noticeable in some patients who, prior to the radiographic examination, had run a slow low grade course over a period of several days without improvement. As a logical result of this observation, when the clinical manifestations are slight and the radiographs show no sign of destruction my colleagues of the oto-aryngological specialty in both hospital and private practice institute a period of from two to five days of watchful waiting and then if the condition shows no sign of clearing up or if the clinical examination indicates that it

has become worse, other radiographs are made and these invariably show signs of softening or destruction."

At this juncture I will describe the positive sign of destruction of the mastoid which I discovered while making that study, and I hope that it will prove as valuable to you as it has to me in the diagnosis of these troublesome cases.

The shadow of the sinus-plate (groove for the lateral sinus, anterior wall of the lateral sinus) normally seen in the radiographs of mastoids of adults and children over three years of age, made in the Law position, is sinus) normally seen in the radiographs of healthy mastoids of children under three years because the mastoid has not begun to pneumatize and to assume the adult type and for that reason the very thin sinus plate of the infant can not be visualized on account of the compact, spongy bone structure of the mastoid which lies over it.

But when that bone structure is destroyed—not merely inflamed or softened—the sinus plate becomes visible on the radiographs of infants as young as three months, the youngest patient examined by me, and at operation a true mastoid abscess is found. By this I mean that after the cortex of the mastoid is removed a cavity filled with pus and debris is found which when cleansed out in most cases by merely wiping with gauze, reveals the sinus plate exposed to view. In a very small number of radiographs of patients under three years the sinus plate was visible when there was no destruction of the mastoid but in every instance a degree of pneumatization existed which was unusual, I may even say abnormal for that period of life, or the location of the sinus plate was abnormally superficial. These findings were confirmed by the operator in the very small number of these anomalous cases which went to operation.

Since the beginning of this year through the co-operation of the House Staff of the Charity Hospital more than 30 infants with

*Read before the Orleans Parish Medical Society, November 24, 1930.

†Director of the Department of Radiology, Charity Hospital, Professor of Radiology, Tulane Post Graduate Medical School.

mastoiditis were treated with fractional doses of the roentgen rays with very gratifying results—again let me say that no cases showing the sign of destruction of the mastoid were treated, but only those with occlusion of the mastoid antrum with or without infection of the mastoid structure.

The technic consisted in making radiographs of both mastoids two or three times a week until clinically and radiographically the condition cleared up or the signs of destruction became evident. The little patients received two or three fractional doses of the roentgen ray a week and at the same time we obtained the same number of radiographic records of the progress of the mastoid pathology. The smallest number of treatments given before the discharge from the ear ceased in the cases that got well was one and the largest was seven.

In quite a number of cases with bilateral mastoiditis the beneficial effects of the roentgen rays were shown most convincingly when the discharge from one ear would stop after one to three irradiations, and it required two or three more irradiations before the discharge from the other ear ceased, although the same local treatment had been applied to both ears from the beginning.

A very constant and reliable indication that the diseased mastoid is responding favorably to these fractional doses of the roentgen rays is for a slight general reaction—rise of $\frac{1}{2}$ to 1 degree in temperature—and local reaction, diminished pain and more profuse discharge, to take place in from 6 to 24 hours after the irradiation, followed the next 24 hours by a diminution in the quantity or a change in the quality—

thinner and less purulent—of the discharge or both.

ILLUSTRATIVE CASES.

Case 1. L. M. F., baby girl, 10 months of age.

June 4, 1930: There was a rise in temp. to 104°.

June 6, 1930: Lung examination negative.

June 9, 1930: Examination of ear revealed red bulging drums. Tympanotomy done and pus discharged from both canals. Temp. 103.5°.

June 10, 1930: Ears still discharging pus. Temp. 103°.

June 10, 1930: Roentgen examination shows occlusion of both mastoids.

June 12, 1930: Ears still discharging pus. Temp. 101°.

June 16, 1930: Ears still discharging slight amount of pus. Temp. 99.6°.

June 16, 1930: Roentgen examination shows both mastoids clearing up satisfactorily.

June 20, 1930: Irrigation of both ears returned clear. Temp. 99.6°.

June 23, 1930: Discharge from ear drying up but tympanum repunctured because of temperature. At this repuncture no discharge was obtained.

June 23, 1930: Roentgen examination shows still further clearing up of the mastoids.

Case 2. V. M., baby girl, 3 years old.

August 30, 1930: Cold, pain in mastoid region, more severe on the left. Temp. 104°. Examination of ears revealed bulging drums. Tympanotomy done, pus obtained from both ears.

August 30, 1930: Roentgen examination shows occlusion of both mastoid antri. with no evidence softening or destruction at this time.

August 31, 1930: Ears still discharging pus. Temp. 103°.

September 2, 1930: Ears still discharging; more on left. Temp. 103°.

September 4, 1930: Ears still discharging; more on left; the amount is decreasing. Temp. 100°.

September 5, 1930: Roentgen examination shows right mastoid clearing up; left mastoid shows evidence of more pus with inflammatory reaction.

September 8, 1930: Right ear irrigation clear; left ear still a discharge of thin watery pus. Temp. normal.

September 9, 1930: Roentgen examination shows right mastoid cleared up; left mastoid shows evidence of pus and inflammatory reaction.

September 12, 1930: Right ear discharge dried up; left ear still a small amount of discharge. Temp. normal.

September 12, 1930: Roentgen examination shows right mastoid cleared up; left mastoid clearing up.

Case 3. A. M. H., baby girl 2 years old, admitted to Charity Hospital, September 25, 1930, with perforation of the right drum membrane, a profuse purulent discharge from the ear for the past week.

September 27, 1930: T. 100.2°, E. N. T. consultation, discharge profuse.

September 29, 1930: T. 100.4°. On this date the child had its first roentgen examination, the left mastoid was clear, the right side showed marked occlusion but no signs of breaking down. Discharge from the ear was profuse and solution returned cloudy with large particles of pus.

September 30, 1930: Routine therapy continued. T. 100°. Discharge nil; solution returned cloudy with large number of pus particles, adenopathy decreasing in size.

October 1, 1930: Routine therapy continued. T. 99.4°. The solution returned cloudy with numerous particles of pus.

October 2, 1930: Patient received the second dose of ray, no change in the condition of the mastoid as shown on radiograph. Solution returned cloudy with few particles of pus. T. 96.6°.

October 4, 1930: Patient received the third dose of ray. Solution returned clear with few particles of pus.

October 6, 1930: Plates of this date showed no change in the pathology previously reported. T. 102°. At this time the patient developed an acute respiratory infection, slight cough, with sonorous and sibilant rales throughout the chest. Solution returned clear with numerous particles of pus.

October 7, 1930: On this date for the first time there is radiologic evidence of the right mastoid clearing up. T. 101°. Irrigations clear and there is still moderate amount of pus returning.

October 9, 1930: T. 99.6°. On this date the mastoids were reported as clearing up satisfactorily. Small amount of drainage, few particles of pus returning.

October 10, 1930: No discharge; solution returned with a few strands of pus. T. 98.8°.

October 13, 1930: Solution clear and no discharge. T. 98.8°.

October 14, 1930: This was the last picture that was taken and the report stated a complete clearing up of the right mastoid. No discharge and solution clear.

October 15, 1930: No discharge and solution returned perfectly clear. T. 98.2°.

October 16, 1930: No drainage and solution returned clear. T. 98.8°.

As there has been no discharge for the past eight days and solution has returned clear for the past four days, the patient was discharged and referred to the E.N.T. Clinic for further observation.

Case 4. E. G., baby girl, 6 years old.

Both ears discharging for over three weeks following measles.

Radiographic examination on March 28 showed occlusion of both mastoids but no sign of softening or destruction. That evening the temperature was nearly a degree higher and the discharge more profuse. The next day the discharge became more watery and began to diminish. Within the week the discharge from the right ear ceased, and that from the left ear continued to lessen but there was still two or three drops of watery discharge during the day on May 9 when another radiographic examination was made. This showed the right mastoid clear, and the left mastoid cloudy, but without signs of softening or destruction.

That night (May 9) the discharge from the affected ear (left) increased slightly and the following day it began to diminish and had ceased entirely on the fifth day after the second raying.

THE SCHILLING INDEX.*

H. T. NICOLLE, M. D.,

BATON ROUGE, LA.

The Schilling index or count is based on the development of the white blood cells. In order to better understand its value and limitations we have to consider first the development of the cells and their origin.

Piney asks a very pertinent question when he says, "Is there somewhere in the body a type of cell capable of giving rise to all forms of blood cells? Or has each type of formed element of the blood an ancestor whose developmental possibilities are strictly limited by its own constitution?"

It is this that has divided the hematologists into two main schools, viz: those who believe that all blood cells are derived from a single type of precursor, the monophyletists, and those who believe that there are two main types of manufacturing cells, the myeloblasts and the lymphoblasts for the granular and the non-granular cells. The monophyletic view is that all cells are derived from the reticulo-endothelial system and that, at any time during life, it can produce haemocytoblasts with the power of developing into any type of blood cells. "The only polyvalent haematopoietic cell is the reticulo-endothelial one."

The monocyte or large mononuclear or endothelial leukocyte is hard to classify. It apparently springs from the reticulo-endothelial system according to some authorities. According to others it develops from the lymphocytes. Piney considers them to be derived from the myeloblasts. Maximow believes that the monocytes are derived from the lymphocytes during inflammatory processes, where they are transformed from lymphocytes to cells which cannot be distinguished from monocytes and finally to polyblasts. "The facts, therefore, give a strong support to the idea that the monocytes are simply lymphocytes, which

under the influence of stimuli of unknown nature and in adaptation to a specific function of probably defensive character, have progressively developed in a particular direction. The monocyte, accordingly, may be looked upon as the polyblasts of the normal blood." This may occur in any part of the body but mainly in the stagnating blood which fills the large venous capillaries of the spleen, liver, bone-marrow and other organs.

Schilling adds a third system for the monocytes to explain the otherwise incomprehensible independence of the monocytic system in the clinical picture. He believes that the monocytes are the only cells derived from the reticulo-endothelial system. He claims to have found all transitions from histiocytes to monocytes.

In the adult it is generally believed that the granulocytes are produced in the bone-marrow, the lymphocytes in the lymphatic tissues and spleen, and the monocytes in the spleen, liver and bone-marrow.

We will take each class separately.

The granulocytes or granular leukocytes originate for practical purposes from the myeloblasts. These develop into myelocytes, then into metamyelocytes or juveniles. The nucleus of the myelocyte is oval with a regular edge. When the nucleus becomes indented, it is the metamyelocyte, young form or juvenile. As the nucleus shrinks further, it becomes rod or band shaped, and this type of metamyelocyte is then called the band, rod, or stab form. As further pyknosis occurs the nucleus becomes broken into several large knobs or segments connected together by a small thread and then we have the true segmented forms. This is conceded by practically all authorities as the development of the granular cells. This occurs in the neutrophiles, eosinophiles and basophiles. The different types of granules are formed early in the myelocytes.

The platelets are, according to Wright, disconnected processes of the megakaryo-

*Read before Our Lady of the Lake Sanitarium Staff, Baton Rouge, April 22, 1931.

cytes in the bone marrow. Petri does not believe that this is their origin. According to Schilling, the blood platelet itself, is the entire modified nucleus of the younger erythrocytes, partly detached, and only becoming free in the circulation.

The classification of the cells according to their ages is approximately as follows:

Lymphoblasts, large lymphocytes, small lymphocytes.

Promonocytes, monocytes.

Myeloblasts neutrophilic, myelocytes, juveniles, stab or band, and segmented.

Eosinophilic myelocytes, eosinophiles.

Basophilic myelocytes, basophiles.

The first to bring out a nuclear index was Arneth. He classified them as to the number of lobes in the nucleus. Class I, 5 per cent; II, 35 per cent; III, 41 per cent; IV, 17 per cent; V, 2 per cent. He then divided each class according to the number of knobs and S-like pieces of chromatin giving a total of 20 classes.

This was modified by W. E. Cooke to five classes by only taking note of the connecting band between the different nuclei. He states that "if there is any band of nuclear material except a chromatin filament connecting the different parts of the nucleus, that nucleus cannot, for the purpose of the count, be said to be divided."

As the Arneth count did not make any provision for the younger cells, it was modified by Victor Schilling to include these and all adult segmented cells were placed in one group. He classified his cells for practical purposes as follows:

Total White Count	Basophiles,	Eosinophiles,
6,800	.5 (0-1)	3 (2-4)

This he speaks of as a hemogram.

Taking the polynuclears arranged in their proper rotation of myelocytes, juveniles, bands and segmented, a shift to the left means that there are more young cells than normal. The greater the shift to the left the younger will be the cells. In a shift to the right, there is a diminution of the young cells in the blood or they may be totally absent.

The number of immature cells is slightly higher in nurslings than in the adults.

In order to properly identify the cells, a very good stain is required. Giemsa is generally used. This may be used alone or the slide may be previously stained with May-Grunewald or Wright's stain. Giemsa brings out the nuclei and protoplasm while the May-Grunewald brings out the granules.

In making the count, Schilling uses the four field meander method.

The Schilling count has been used for diagnosis and prognosis in this laboratory for about eighteen months. I have found it very valuable both in diagnosis and prognosis.

It has nothing to do with the total count. We may find a high count with a low Schilling and a low count with a high Schilling.

For the purpose of evaluation of the blood findings, I personally prefer to have a complete hemogram which gives me the total red and white counts, hemoglobin, color index, differential count with Schilling count, platelet count, and the types of immature cells in the blood. This latter takes into consideration the immature cells in the neutrophiles, lymphocytes, monocytes and any other that may be found. This last tells us the condition of the cell manufacturing centers and how much reserve we have at any given time.

Mye. Juv. Bands, Segm. Polynuclears	Lymphocytes	Monocytes
0 0	4 (3-5)	63 (58-66)
	32 (21-25)	6 (4-8)

A definite and certain clinical symptom must never be disregarded because of a negative blood picture; nor should marked blood findings be disregarded because of absence of clinical symptoms.

Total	White	B	E	M	J	B	Seg.	L.	M		
	4,850	0	0	0	4	84	3	6	3	Immature count	88
					91						
R. M. Tuberculosis, arrested.											
Date	WBC										
3/10	7,400	0	0	3	0	34	34	24	5	Influenza	34
					71						
3/31	6,550	0	0	0	0	17	45	31	7	In bed	17
					62						
4/7	7,300	0	1	0	0	16	51	34	8		16
					57						
4/14	5,300	0	3	0	0	21	31	36	9	Lost 1 lb. in week	21
					52						
4/22	6,825	0	4	0	0	10	45	33	8	Gained 2½ lbs.	
J. P. V. Traumatic Pneumonia, right.											
4/15	20,925	0	0	1	2	23	55	9	9	S. C.	26
					81						
4/16	19,550	0	0	0	1.5,	22.5	64	6	6		24
					88						
4/17	13,700	0	0	0	3	12	73	11	1		15
					88						
4/18	9,025	1	0	0	2	16	68	10	3		18
					86						
4/21	12,300	0	4	0	1	8	67	17	3		
					76						

CONSERVATIVE GYNECOLOGY:

ITS RATIONALE AND ITS END RESULTS.*

C. JEFF MILLER, M. D.,

NEW ORLEANS.

I have quoted many times before, and I expect to quote many times again, a wise remark of Howard Kelly's, to the effect that surgery, developing in the hands of men, has dealt too lightly with mutilating operations in women, and that if the case might be reversed for several decades, with women operating and men suffering the mutilation, there would undoubtedly be a large prepossession in favor of a wise conservatism. His comment, made many years ago, is still timely, for gynecology, in the modern phrase, has "gone surgical." There is a general tendency to resort to operation without a careful consideration of simpler measures which would be quite as effective for the patient, and very much safer. There is a general tendency to remove the female sexual apparatus, in whole or in part, on promiscuous and casual indications which, in another part of the body, could only be considered trivial. There is a general tendency, since the ablation of the genitalia is not a procedure which carries an inordinately heavy risk, to disregard the fact that a woman's whole scheme of existence takes its point of departure from her pelvic organs.

Conservatism, however, is an entirely relative term. Its implications vary in different ages. A century ago it was conservative to refrain from all surgery except such as was absolutely lifesaving, and hundreds of women died from uterine and ovarian tumors which today the least radical of gynecologists would feel warranted in removing on the simple indication of their presence. Seventy-five years ago, when operation for such conditions had been generally accepted, it was conservative to resort to it only when the tumor was very

large or the patient had suffered a good deal. Fifty years ago it was conservative to treat uterine fibroids by oophorectomy, a procedure little short of barbarous to us of this age.

Plainly it is a case of other times, other manners. But at that, it is not always easy to define conservatism. There is no such thing as an operation which is fundamentally conservative, even though, speaking categorically, preservation of structure and function is always to be preferred to their ablation. Circumstances alter cases, and a sense of proportion is necessary in the evaluation of any procedure, though it must be constantly borne in mind that a perfect surgical result, desirable though that be, is never the only result, for when a woman's pelvic organs are in question, function, other things being equal, deserves quite as much consideration as do mortality and morbidity.

Social and economic factors likewise play an important part in the management of gynecologic conditions, and I have little patience with the surgeon who boasts that they never enter into his calculations. It would be much better for all concerned if they did. It is undoubtedly unfair that a woman of leisure, in an adequate financial environment, should be permitted a conservatism which a wage-earning woman, a woman in straitened circumstances, a mother of many children, or even a woman of limited intelligence, cannot possibly be permitted, but those are the facts. A conservative operation which entails the risk of secondary surgery later may be entirely justified in a young, well-to-do, recently married woman, but it would not be justified in a woman approaching the menopause, a woman who is the mother of a family, or a woman whose livelihood depends upon her own exertions.

We meet such problems in our private work only too frequently for our peace of mind, but we meet them much more often in public practice. I meet them particu-

*Read at the sectional meeting of the American College of Surgeons, Little Rock, January, 1931.

larly often on my colored service at Charity Hospital, as does every surgeon who deals with colored women. To take a single illustration: these patients are especially susceptible to gonorrheal pelvic infections, for which the accepted treatment is prolonged rest, isolation from the source of infection, and surgery only when conservative measures have failed and symptoms continue to recur. I am in hearty accord with these principles, as I shall point out shortly, and I applaud the excellent results of the gynecologists who employ them. But as far as my colored service is concerned, they are utterly impractical and utopian. These patients can often be cured symptomatically, even when their pelves are anatomically wrecked, if I may so express it, by following the regimen I have just outlined, but their cure is seldom permanent. In the majority of cases, if we discharged them at this stage, they would return to us at a later period, and to the charge of the state, with the same pathology in an even more aggravated form. The unhygienic conditions under which they live, their dependence upon their own efforts, make it quite impossible for them repeatedly to lose time from their work or their families, while their lowered moral sense and their limited intelligence make it equally impossible for them to protect themselves against re-infection. We must choose between operating before our better judgment dictates, or permitting them to leave the hospital in little better condition than when they entered it. As a rule, therefore, when we have cooled them down, when the criteria of the delayed operation have been met, we operate on them promptly, we clear out their pelves thoroughly, and we consider ourselves conservative, radical though we may seem. What is desirable and possible on a private service may be equally desirable but quite impossible on a public service, and we simply stultify ourselves by refusing to face the facts.

On the other hand, the whole problem of pelvic infection is an excellent example of

the case for conservatism. For the last twenty years, since Simpson first advocated the method, expectant treatment has been rather generally the rule, but recently the pendulum has been swinging to the other extreme again, and we have had a plea for immediate operation made by a group of men whose brilliant individual results, at least from the standpoint of their immediate mortality, I unhesitatingly grant, though their arguments otherwise seem rather specious.

In the first place, a certain percentage of these patients, even in the colored race, will always recover spontaneously and the first attack will be the last. Certainly abdominal section under such circumstances cannot by any process of reasoning be regarded as conservative, quite aside from the fact that, when immediate operation is done, complete pelvic débridement, which is an extremely radical procedure, is usually necessary. I grant the argument that a woman who has had an attack of gonorrheal salpingitis is very likely to be sterile thereafter, but even at that, I cannot see that she is any more absolutely sterile than is her sister whose tubes have been removed at laparotomy during an acute attack. I would remind you, too, that statistics for expectant treatment show a 10 to 12 per cent chance of subsequent pregnancy, a possibility which immediate operation automatically eliminates. As to the conservative procedures supposed to be practical if immediate operation is done, few positive results from them have been reported, and recurrent pelvic disease and extrauterine pregnancy are not rare sequelae. It cannot be gainsaid that when radical treatment is instituted, these women—and most often they are young women—emerge from the operation in the vast majority of cases functionally destroyed, and frequently facing in addition the distressing symptoms of a premature menopause, which is always stormy in proportion to the youth of the patient.

In the second place, radical treatment, despite the excellent showing of Bonney,

DuBose and their chief followers, will increase the mortality of pelvic disease many times. Under this plan it was formerly as high as 20 per cent, and recent studies show that 90 per cent of the operative mortality for tubal disease and 75 per cent of the postoperative morbidity still occur in patients who have not been properly cooled. These are collective figures, and they are therefore more to be relied on than the figures of the authorities I have just quoted, for it must never be forgotten that the bulk of all surgery is done, not by surgeons of eminence, but by men of average ability, or, to speak bluntly, of small ability, whose disregard of established principles is likely to meet with swift and certain retribution.

Finally, the patient herself should have some say in the matter of what is to be done to her. Her chances of a clinical cure under expectant treatment are reasonably good, her chances of a functional cure are decidedly more dubious, but if she understands the circumstances, if she is so situated that she can take the risk, she has a perfect right to take it. It is quite possible that she may prefer to retain her pelvic organs, damaged though they be, on the analogy, as Chipman puts it, that half a loaf, and a painful loaf at that, is better than no bread. She is the best judge of her own desires and her own condition. If any patient of mine considers herself well, if she is able to resume her normal habit of life and to do her daily work with only brief periods of disability, I am quite ready to agree with her that she is well, even though the pelvic findings may not be entirely to my liking. A woman's sexual organs are the basis on which her whole life is founded, and her sexual sanctity—I feel very strongly in this regard—should be violated only in the face of an urgent need. Which need, I might add, a single attack of salpingitis rarely constitutes.

When once the necessity for operation has been established, however, then radicalism becomes conservatism. When the

abdomen has been opened, if the disease is specific or tuberculous, then bilateral salpingectomy is the only procedure which can guarantee against its recurrence. In tubal disease, almost more than in any other pathology, the sanest surgeon, the safest gynecologist, is he who refrains longest from the practice of his art, but who, when obliged to exercise it, tempers his conservatism with sufficient radicalism to ensure for his patient a permanent cure.

But his ruthlessness must not be extended to organs not involved in the infectious process. Routine removal of the ovaries, for instance, after either salpingectomy or hysterectomy cannot be too strongly condemned. In pelvic disease of specific origin the ovary is frequently not essentially diseased, it has simply been in bad company, and its conservation is always indicated if it seems likely that extirpation of the primary focus of infection will relieve its acquired pathology. If the ovary is essentially diseased, on the other hand, the situation is very different, and oophorectomy is usually indicated. Resection simply paves the way for future trouble, and while ovarian grafts are useful in a small percentage of cases, their field is very limited indeed. I am aware that the final facts are still in dispute as to the fate of conserved ovaries, but until we know more of their part in the internal economy after the menopause, we should not remove them without due cause, quite aside from the fact that excellent results from the conservative method are reported by many competent authorities.

I do not hold, either, with the routine removal of the uterus simply because the tubes have been removed for specific disease. If it is intrinsically diseased, hysterectomy must naturally be done, but otherwise I do not see the logic of the procedure. For one thing, it adds, unquestionably, a definite if minimal risk to the operation. For another, it ends menstruation forever, and though that function is the curse of the female sex, most

women are perverse enough to desire its continuance, even when the more important function of conception cannot occur. Sampson's recent studies in post-salpingectomy endometriosis would seem to put a different complexion on this subject, but I have not yet seen such sequelae in sufficient numbers to make me change my views on the preservation of the uterus after removal of the tubes.

We have come very far from the surgeon who, as late as 1886, said, "I shrink and have a feeling of terror come over me when I find myself obliged to do a hysterectomy," but it might not be altogether a bad thing if there were some such feeling of fear abroad in surgical circles today. For hysterectomy has become the most abused operation in gynecology. It is still being performed for the so-called essential uterine bleeding, though it is not warranted in one case in a hundred, since the uterus is simply responding to the evil stimulation of dysfunction elsewhere. It is still being performed for uterine bleeding when the trouble is extrauterine and even extra-pelvic. It is still being performed, though I grant usually unintentionally, for bleeding that has its origin in some complication of pregnancy.

Hysterectomy is often performed very unnecessarily for uterine fibroids, for which either myomectomy or irradiation should always be first considered if the tumor does not fall into that small group of symptomless growths which need no treatment at all. Myomectomy is an operation which, at least in private practice, has a wider field than is generally supposed. In competent hands the mortality and morbidity are no higher than they are in hysterectomy, and from the standpoint of both the menstrual and the child-bearing function the end results are extremely good. On the other hand, it is not conservatism, it is the height of unwisdom to perform it if the uterine musculature is seriously damaged either by the existing pathology

or by the surgery necessary to remove the growths, and it should likewise not be performed if the appendages must be removed for tubal or ovarian disease, or if the woman is at or near the menopause.

Irradiation is another procedure which can be either conservative or radical. Since it most often means the complete destruction of function, it is seldom the elective treatment for fibroids in women under forty, though it is the ideal method for selected cases after that age, as well as for the menorrhagias of ovarian origin. Even in young women and in girls, though it is frankly a last resort, it can be used in graduated doses to check uterine bleeding and produce a temporary amenorrhea. As Howard Kelly says, it is notoriously difficult to terminate menstruation in early life, even when that is the aim, and he adds that the advocates of surgery certainly possess no magic by which they can extirpate the uterus and at the same time preserve function. In the rare instances in which graduated irradiation fails, then hysterectomy is to be preferred to a menopausal dose in young women, for very serious consequences may follow the abrupt ablation of ovarian function by the use of radium or the roentgen-ray.

Hysterectomy for hydatidiform mole has always been an unwarranted procedure. The disease is relatively rare, and chorioepithelioma as a sequel is even rarer; 50 per cent of such malignant tumors are preceded by moles, but the reverse of the statement, often advanced as a fact, is positively not true; 50 per cent of moles do not develop into chorioepithelioma. Even in the days when microscopic study of the uterine scrapings, which is admittedly an unsatisfactory and inconclusive procedure in this special disease, was the chief diagnostic resort, immediate hysterectomy was scarcely justified, and now that the Aschheim-Zondek test has given us a practically infallible diagnostic measure, there is no excuse for it whatsoever.

Time does not permit me to discuss other conditions and other procedures. I cannot do more than point out that the curette, that much maligned and much abused instrument, can, if properly employed, avert many radical and serious and unnecessary operations. I cannot do more than point out that diseases of the cervix should be handled far more frequently by prophylactic cauterization promptly after labor than by delayed surgery, and that, if surgery must be done, trachelorrhaphy, or the Sturmdorf or the Schroeder operation, all of which are usually possible after proper preparatory measures, should be done far more frequently than amputation with its chain of evil consequences. I cannot do more than point out that retroversion of the uterus is not, *per se*, an indication for a displacement operation, and that surgery should be done only when it is clear that the symptoms complained of are the proven result of the malposition. I cannot do more than point out that endometriosis introduces a most delicate problem, and that in its management radicalism and conservatism are divided only by the narrowest of lines.

The conclusion of the whole matter obviously does not lie in categoric classifications. The simplest procedure may be at times a very radical one, the most radical procedure may be at times true conservatism. The important consideration is that not only the immediate but the end results of every mode of treatment shall be evaluated; not only operative mortality but ultimate function; not only the patient's physical well-being but her mental and spiritual equilibrium. For gynecologists, beyond all other physicians, hold the happiness of women in their hands quite as much as their lives and their health, and it behooves them to take earnest heed that they preserve them all alike.

SENILE VULVITIS AND VULVO-VAGINITIS,
WITH SPECIAL REFERENCE TO TRICHOMONAD
VAGINALIS INFECTION.*

LUCIEN A. LEDOUX, M. D.,

NEW ORLEANS.

The vulvitis and vulvo-vaginitis, non-specific in character which is frequently noted after the menopause, presents several features of unusual interest, and is therefore worthy of more than casual consideration.

The origin of this disturbance in these types of cases, is too frequently taken to be the result of a common leucorrheal infection, and insufficient study and a lack of appreciation of the possible underlying causes, often accounts for the failure to achieve permanent results in its treatment.

The cessation of the sexual physiologic life in the female, is evidenced in many ways, one being the gradual atrophy of the sex structures, the vulva showing marked changes, the mons-veneris losing its firmness and adipose tissue; similar changes appear in the labia and sebaceous glands, resulting in the loss of tissue elasticity and lubrication. These changes are noted especially in women who have reached the menopause at a later period than the average and who may have been classed during their active life as of the hyperthyroid type.

These tissue changes produce a type of dermatitis, which appears to be greatly aggravated by the sensory changes which are typical of the general changes in the nervous system at that time, and the resultant irritation is very disagreeable and at times becomes very painful, producing in extreme cases a complete demoralization of the individual with loss of appetite and weight, sleeplessness and acute nervous system upheavals, all of which should

*Read before Orleans Parish Medical Society, January 26, 1931.

serve to emphasize the fact that cases of this type, should not be dismissed with a prescription for calamine lotion, and instructions to take a daily hot sitz bath, for while these are helpful, they are not sufficient.

Senile vulvitis is generally unaccompanied by a vaginal discharge; if it is, it is unusually slight, therefore treatment should be directed to relieving the general menopause symptoms as well as attempting to allay the local irritation.

The institution of vigorous hygienic measures, with emphasis on the relief of constipation, sedatives, my choice being the bromide of sodium in sufficient and frequent doses, iron, strychnine and arsenic, endocrine therapy as indicated in the particular case, using the specific hormones separately, never in combination, usually lutein or thyroxin or both, the kneechest position to improve the pelvic circulation, the ingestion of large amounts of water, and a diet which tends to be slightly greater than normal in fats.

The local treatment should consist of hydro-therapy in the form of sodium bicarbonate hot sitz bath, pure cold cream with the addition of phenol, menthol, and in some cases cocaine hydrochloride, anointing the vulva, particularly the labia, freely, at least three times daily, and also the use of the sun lamp.

When the dermatitis is exfoliative, careful cleansing with the tincture of green soap, followed by the application of zinc oxide ointment will afford much relief.

Such a plan of treatment will do much to correct the disability in these types of cases.

In vulvo-vaginitis we have the typical appearing leucorrhoeal discharge, but in some cases, while it is yellowish white, it presents in addition a frothy appearance, as though filled with air bubbles, this is often noted upon separating the

labia or after further examination with the speculum.

This produces at times a vulvitis and vaginitis, the vaginal mucous membrane is inflamed, as is the cervix, the latter showing small, various shaped ulcerated areas. The surface bleeds easily to the touch and it may be very painful.

Examination of this discharge by the usual methods of staining and preparation will not reveal the offending organism in such cases, but examination in the fresh, will demonstrate the presence of a large number of flagellates identified as the trichomonad vaginalis.

Infection with this type of organism is not infrequent, it may occur at any time during the sexual life of the female, and is often the causative factor in the production of vulvo-vaginitis after the menopause.

Whether this organism is truly pathogenic or saprophytic, I am unable to say; I have found this infection in women after the menopause, during long, lingering illnesses and pregnancy, periods of relative, sexual inactivity, which suggests that it is a saprophyte, though, as I have already mentioned, its presence has also been detected in other periods of life.

The organism is associated with evidence of desquamation, of varying degrees, with pus cells present, and at times, few if any other organisms.

The pathogenic changes resulting from its activity is often intense, at other times mild, and it is an infection, while easily controlled, nevertheless difficult of complete eradication.

A search for the trichomonad vaginalis should never be made immediately after douching or while the patient is receiving active, local treatment, as these mitigate against successful diagnosis. Likewise, the presence of blood in the vaginal tract seems to lessen our ability to find the

organism, a circumstance for which I can offer no plausible explanation.

Given such a case, if the usual methods of treating leucorrhea are employed, the infection will be controlled to an extent, but any semblance of a cure can not be anticipated, as it positively resists our ordinary efforts.

I have seen a number of cases, of two or three years duration, labelled as simple leucorrhea, without microscopic examination, complaining of severe symptoms, shortly after douching and other local treatments has been discontinued.

The method of treatment that I have used is briefly as follows: When I first attempted the treatment of these infections, I routinely irrigated the vagina with sodium bicarbonate solution, and cleansed thoroughly with tincture of green soap. Afterwards the field was thoroughly dried and the full surface treated with a 2 per cent solution of mercurochrome. After drying, the patient was instructed to take a vaginal douche, using one drachm of powdered zinc sulphate to a quart of warm water, twice daily. Zinc oxide ointment was then applied with a tampon every other day for a period of eight or ten days and the relief afforded by this method of treatment was conclusively better, but by no means complete, as in a number of cases, subsequent examination revealed continued infection.

In recent month I have had occasion to supplement this treatment, with vaginal application of a solution of pyroligneous acid, and using Lassars paste, which is composed of salicylic acid, zinc oxide, starch and petroleum, as a tamponade, every other day for two or three treatments.

This was a suggestion offered by Dr. S. G. Klegman, S. G. O., October, 1930, who has had considerable experience in the treatment of this disease, and she reports on controls of cases showing cures in 85 per cent of her cases. It appears, there-

fore, that we have the necessary medical aids in caring for this problem, yet a cure cannot be claimed until the patient has been without treatment of any kind for at least four months and successive examinations are negative.

CONCLUSIONS.

(1) Simple, non-infectious vulvitis after the menopause, should be treated both locally and systematically.

(2) Trichomonad vaginalis infection is frequently the cause or sustaining cause of vulvo-vaginitis after the menopause.

(3) Every case should be studied microscopically, using a fresh specimen as the usual method of staining are of little value.

(4) Treatment should be thorough and controlled by microscopic examination.

(5) Four months without treatment and repeated negative examination are necessary before assuming that the infection is non-existent.

DISCUSSION.

Dr. F. M. Johns (New Orleans): Dr. LeDoux has undoubtedly requested me to open this discussion to present my views concerning the pathogenicity of the trichomonad vaginalis in relation to vaginitis, as we have on several occasions discussed this problem.

I feel quite certain that these protozoan parasites do not directly invade the mucosa of the vagina, rectum or large intestine upon whose surfaces they may very often be found. Reproduction of these protozoa takes place in the fluids bathing these mucosal surfaces and have not been demonstrated in tissue sections. They multiply to great numbers if the fluid is rich in albuminoid material as it always is in the presence of inflammation of the mucosa from any cause whatsoever. In the vagina they occasionally thrive on the exudate poured into that cavity from a chronically inflamed uterus, and in some of these instances there is no demonstrable vaginitis.

It is conceivable that some toxic material may be formed as an excretion product or liberated from those protozoa that die and disintegrate. This has never been proven. It is, however, almost certain that if trichomonads are present in any considerable numbers in any of the body

cavities there is certainly an inflammatory condition present that definitely needs treatment.

It was rather amusing to see in a recent number of S. G. and O. an article on trichomonad vaginitis illustrated with a cut containing several parasites with four flagella each! The clinical deductions made by this author are probably just as correct as the picture.

Dr. LeDoux (closing): There is not very much to add but I do want to thank Dr. Johns for his very excellent discussion.

Whether trichomonas itself is capable of producing these changes or not I do not know, but it appears from a study of these cases that the leucorrheal discharge having already begun as a result of bacterial infection, trichomonas seems to be the sustaining influence in the continuance of the discharge and unless we keep in mind the necessity of eradicating the sustaining influence, as well as the predisposing cause, we are going to have a continuance of the infection for an indefinite period.

POST-ENCEPHALITIC EPILEPSY,

WITH A REPORT OF TWO CASES IN CHILDHOOD.*

EMILE NAEF, M. D.,
BATON ROUGE.

Epidemic encephalitis and its sequelae have been extensively described in the medical literature of practically every country since its initial appearance in Vienna in 1917 and its subsequent appearance in New York in March, 1918. Von Economo, observing the earliest cases in the Austrian epidemic, recognized a group of symptoms of sufficiently typical characteristics to be classed as a separate clinical entity and contributed the first description of the syndrome appearing in the literature. The assumption that epidemic encephalitis existed previously is well founded, a somewhat similar epidemic called "La Grippe Cerebrale" by the French writers having appeared in all parts of the globe in 1892. Much of the earlier writing on epidemic encephalitis was devoted entirely to description of the acute

stage of the disease and the etiology, while latterly the pathology and sequelae are given more attention.

Epidemic encephalitis, while frequently affecting children, is not predominantly a childhood disease. Hall,¹ in 1925, reporting his observations on 500 cases at all ages, found about 40 per cent occurring in persons under 16 years of age. However, it may occur at any age, one case being reported in a newly-born whose mother was ill with the disease at the time of labor.

The disease is essentially a winter or early spring disease, occurring at a season of the year when influenza is prevalent, and virulent organisms may be implanted in the throats of individuals not actively manifesting symptoms of influenza. This fact opens an etiological point of observation, though whether the disease is caused by a pleomorphic form of the influenza bacillus, by a filterable organism not yet differentiated, or by the activation of some latent infection, remains to be established. Gorter² thinks it improbable that encephalitis is ever caused by any activation of a latent infection. Throckmorton,³ however, is convinced that once the disease is contracted, it may become latent, with acute manifestations flaring up after prolonged intervals of entire freedom from the disease. Price⁴ reports a recurrence in a patient one and one-half years after recovery, and attributes the return of symptoms to a "probable recrudescence of encapsulated infectious foci, rather than a reinfection from an outside source."

Several salient features of encephalitis have become well established facts, among which is the definite infectiousness of the disease, but with less tendency to appear in epidemic form than was formerly supposed, many sporadic cases being reported from widely scattered districts.

Another well-established fact is that the disease may attack any part of the central nervous system from the brain to the spinal

*Read before the Louisiana State Pediatric Society, April 13, 1931.

cord, the basal ganglia and the brainstem being most frequently involved.

Our further knowledge of the disease reveals the fact that so multiple and varied are the symptom-complexes that many cases defy complications in spite of persistent attempts to classify them. The lethargic, the paralysis agitans type, the polioencephalitic, the acute anterior poliomyelitic, the posterior poliomyelitic, the epileptomaniacal, and the acute psychotic type⁵ are types of the disease encountered, though many cases could meet the requirements of two or more of these types depending on the multiplicity of the symptoms and signs presented.

Fairly typical laboratory findings are encountered in epidemic encephalitis when evaluated in conjunction with the neuromuscular signs and the course of the disease. The blood usually shows a moderate total leukocytosis, the differential count approaching normal. The spinal fluid is usually obtained under pressure, and in my experience, has practically always been obtained under increased pressure, though some writers claim increase of cerebro-spinal pressure in only 10 per cent of these cases. The fluid is clear and limpid with a normal or slightly increased globulin and albumin. The frequently reported increase in sugar is dependent on the carbohydrate intake, the amount of sugar in the spinal fluid being normal if the specimen is collected after a 12-hour fast.⁶ These findings bear a close resemblance to the findings in poliomyelitis, though poliomyelitis shows a more constant and marked increase in neutrophils and globulin, with more tendency to pellicle formation. Any marked abnormality of the spinal fluid findings immediately suggests a meningitis.

Sequelae of some kind occur in from 80 to 90 per cent of these patients, depending on the amount of damage to the cells of the central nervous system, which however bears no relation to the severity or mildness of the symptoms during the acute stage. The sequelae fall chiefly into two

main groups: the behavior disturbances and the parkinsonian-like syndromes.⁷

The mental sequelae or behavior disturbances of encephalitis present themselves in every degree of severity from the comparatively mild "difficult child" type to the dreaded extreme of complete idiocy, while rarely manic depressive insanity remains as a sequel. The difficult child is one who does not respond to discipline, lacks concentration and is readily fatigued by slight mental effort; whose emotions are usually dulled and frequently has completely disoriented himself in relation to sleep, being dull and sleepy during the day, and wakeful and restless at night, often talking loudly, whistling, and singing during the period of insomnia. He wears the expressionless facies of facial paralysis and registers little emotional response to external stimuli. Exophthalmos, more apparent than real (because of staring expression and widened palpebral fissures) is sometimes found. Between this dull, retarded type and post-encephalitic idiocy appear the cases of complete character change, where children formerly well-behaved become sneak thieves and falsifiers, develop habits of wandering from home, engage in street fights, become filthy in personal habits, sometimes exhibit precocious sexual tendencies, and rarely manifest homicidal or suicidal mania. The post-encephalitic idiot drools saliva almost continuously, articulation is difficult and speech becomes heavy and monosyllabic; habit-tics are frequent; lack of sphincteric control may be present, and finally a complicating parkinsonism may be present, further typifying this class of unfortunate.

The neuromuscular sequelae include the much-described parkinsonism, epileptoid states or frank epileptic seizures, ataxia and chorea, while hemiplegias, paraplegias, and monoplegias, often described in the earlier literature of encephalitis, are rarely mentioned sequels in the more recent writings. Kennedy⁸ reports parkinsonism in 34 per cent of a series of 61 cases. Anderson,⁹ however, found it occurring only

once in forty of his cases. The ocular manifestations—forced conjugate upward movement of the eyes—appear as a part of the post-encephalitic parkinsonian syndrome, these ocular spasms having been first described by Holman in 1925. In these cases the mechanism affected lies in the corpus striatum and its connections with the anterior quadrigeminal bodies and the oculomotor type. A rare type of post-encephalitic residual is a spasm involving an extremity, described in 1924, by Lemos,¹⁰ who designated it intermittent claudication. In the case described, cramps of the muscles of mastication and of the arms appeared, together with conjugate deviation of the head and eyes, regarded by the author as due to a crisis of extra-pyramidal hyper-tonia probably based on a lesion occurring in the corpus striatum. Throckmorton reported a case in a 21-year adult in whom three distinct attacks of epidemic encephalitis appeared, the most recent one being complicated by spasms involving the right arm and leg—more especially the arm—and at times causing conjugate deviation of the head and eyes with spasm of the facial muscles, but with no loss of consciousness, thereby presenting a typical Jacksonian epilepsy.

Epilepsy and the epileptoid states occur as residuals of epidemic encephalitis in a small percentage of cases. Stern, reviewing 450 cases of epidemic encephalitis, encountered on only one case of persistent epilepsy. Prof. Wimmer¹¹ of Copenhagen in 1927 reported 23 cases of encephalitis with epilepsy. It is interesting to note that Wimmer qualifies these convulsive seizures as "epilepsy in chronic epidemic encephalitis," feeling that they belong to the active, chronic, infectious process in the central nervous system, rather than to the symptom-complex of truly post-encephalitic residuals. Reviewing these case reports one is impressed with the variable length of time elapsing between the acute attack and the first typical epileptic seizure, the time ranging from one month as the earliest

to seven and one-half years as the latest time at which epilepsy developed after the encephalitis.

Two cases of epidemic encephalitis are reported, with residual epilepsy developing in the first case seven and one-half months after the initial acute symptoms and one and one-half months following onset of symptoms in the second case.

Case R. C. B. White male, aged 3½ years. The family history is irrelevant, the patient being the fifth pregnancy; both parents, two brothers and two sisters living and well. Whooping cough at four months of age, pneumonia at one year and measles at 18 months. Tonsils and adenoids removed at twenty-two months of age. At six weeks of age had continuous convulsions for one day. Seemed perfectly normal physically and mentally until onset of present symptoms.

Forty-eight hours previous to first observation, July 22, 1928, patient had a convulsive seizure lasting about thirty minutes. With colonic flushing and alcohol sponging, patient relaxed and seemed inclined to sleep almost continuously. Temperature rose shortly after the convulsion; in the late afternoon of day of onset had a second convulsion of five minutes duration, following which he seemed unable to use the left arm and hand and lapsed into a state of complete somnolence from which the patient could be aroused, though immediately lapsed into a deep sleep. Vomited once at onset of symptoms.

Physical examination showed a well-developed and well-nourished male child. Cranium of normal contour. Fontanels closed. Ears negative. Eyes have a stuporous stare, slight inequality of pupils, not constant, and hyperactive pupillary reflexes. Nares clear. Normal throat. No glandular adenopathy. Chest of normal contour. Lungs are clear. Heart negative. Abdomen scaphoid and doughy, minus two tissue turgor, spleen not palpable, liver palpable 2.5 c.m. Normal genitals. Left lower extremity spastic with passive accentuation of spasticity. Brudzinski's marked and Kernig's well marked. Patellar reflexes exaggerated on right and retarded on left.

Laboratory findings: Examination of blood on July 23, 1928, showed hemoglobin, 65; color index, 66; erythrocytes, 4,800,000; leukocytes per cmm., 12,200; small lymphocytes, 9; large mononuclears, 3; neutrophils, 88.

Cerebro-spinal fluid: Amount, 15 c.c., color clear, water-white; erythrocytes, none; leucocytes, few; cell count, 15; globulin increased; sugar 15.3 mgm. per 100 c.c.

Progress: July 23, 1928. Spinal puncture produced 25 c.c. of a clear, lipid fluid under increased pressure. Slight spasticity of left lower extremity. Persistent stupor and fixed glassy stare. Sleeps a great deal and does not evidence pain. Temperature 103.3-5° rectal.

July 24, 1928. No spasticity, though seems uncomfortable when lying in prone position. Marked lethargy continues, though in late afternoon aroused and called mother. Brudzinski's and Kernig's signs positive.

July 25, 1928. Seems much less lethargic. No spasticity, and spinal puncture produced only a few drops of blood-stained fluid under normal pressure.

July 26, 1928. Bright and cheerful. Asks for food and parents. Brudzinski's and Kernig's almost entirely absent.

August 4, 1928. Two weeks after initial symptoms patient walked into office with the father, who detected a slight impairment in use of right leg and a tendency to unknowingly walk into objects. Physical examination at this time was negative except for a general sluggishness of motor activity, more marked in right extremity during walking, and slight impairment in speech. Patellar and other reflexes negative.

August 15, 1928. Gait is more regular and animated, and patient has shown no tendency to walk into objects. No spasmodic contractions or flaccid paralysis. Complains of occipital headaches. Physical examination negative. Slight impairment of hearing in right ear.

September 20, 1928. Weight 35 lbs., 10 oz., a gain of 2½ lbs. over weight of six weeks previous. Has become restless at night and again seems to "run into objects unknowingly." Complains of "ants biting him" over right eye and back of neck. Speech is more normal than at any time since onset. Examination of eye-grounds at this time reported negative. Entire physical examination negative. Hearing in right ear continues progressively defective.

February 26, 1929. Appeared at office with the description of "fainting spells" during the two weeks previous. During these seizures, five or six daily, of only a few seconds duration, consciousness is lost, a fixed momentary stare develops, pupils dilate, face becomes flushed and slight contractures of muscles are present. Sleeps well and has no seizures in sleep. No fever. Always has a premonitory aura.

April 30, 1929. Was admitted to hospital with temperature 103° following a severe convulsion of some five to ten minutes duration. On observation at this time was entirely relaxed, and free of convulsive twitchings, with no mental clouding, so no spinal puncture was indicated.

May 13, 1929. Yesterday had a severe convulsion of five minutes duration and presented the classical picture of an epileptic seizure, with biting of tongue and complete loss of consciousness. For past four days, has had twitchings of right hand and arm. Seizures are variable from 15 seconds to three minutes duration.

From May 13, until July 19, no epileptic seizures occurred. On July 19th a seizure of five minutes duration was observed and again a similar attack on August 24.

October 8, 1930, patient walked into office. From August, 1929, to February, 1930, had typical epileptic seizures at six to nine weeks intervals, and following these seizures for five or six days would have ten or twelve attacks resembling the so-called "absent state" of petit mal, when a fixed stare, momentary slight twitchings of facial muscles and fleeting loss of consciousness were present, with an occasional deep "crowing" inspiration at end of seizure. On February 22, 1930, had a most violent epileptic seizure since beginning of encephalitis, with loss of consciousness for nearly three hours (statement of mother).

For one year from this date, remained entirely free from epileptic seizures of any type when a return of the attacks of the petit mal was noted, February, 1931. At this time had three seizures in one day.

Ten days ago had three seizures within a half hour, these seizures presenting the classical picture of petit mal.

Examination at present time shows a fairly well-developed male child of apparent age, somewhat sluggish mentally and physically, with no impairment of function and normal to all neurological tests. Speech is heavy, with a tendency to lisping. Presents a complete character change with habits of wandering from home, hyperemotionalism, and defective memory and concentration. Complete loss of function of right ear.

Case H. J. A. Male child, aged 4 years. Mother living and well. Father has developed a sclerotic deafness and has entirely lost the function of one eye. Patient is the fifth pregnancy, the fourth pregnancy having miscarried. Three brothers and one sister living and well. No knowledge of tuberculosis, cancer or lues.

Full term, normal delivery, birth weight 7½ lbs. Has had none of the contagious diseases. Had flu in January; prior to present illness had never had a convulsion; no intestinal disturbances; is a persistent bed-wetter and has night terrors.

Forty-eight hours ago developed temperature 101° associated with slight watery nasal discharge but no cough. Temperature persisted between 100° and 101° and a marked change in disposition

developed, the patient alternating between periods of somnolence and excitability. Thirty-six hours after onset had a severe generalized convulsion of about five minutes duration.

On evening of admission to hospital, March 3, 1929, patient developed severe convulsive seizures lasting from five to seven minutes, recurring at intervals of from one to two hours; during the seizures, there is no biting of tongue but spasticity of all extremities follows, persisting for twenty or thirty minutes after each convulsion.

Temperature ranges between 100° and 101° by axilla. Patient has seemed mentally confused and restless since admission to hospital.

Examination shows a well-developed and well-nourished male child with temperature 100° by axilla. Confused mentally and generally restless, tossing arms and legs purposelessly. Normally shaped cranium. Normal ears, normal eyes, pupils equal and reacting. Normal nose, slight nasal discharge; mucous membranes of lips of good color, tongue slightly coated, tonsils not enlarged or reddened, pharynx reddened. No glandular enlargements, a chest of normal contour, lungs clear throughout. Heart not enlarged, no murmurs. Abdomen retracted slightly, spleen palpable at costal margin, liver 3.5 cm.; no umbilical hernia; normal genitals. Normal back. Spine freely flexible; no cervical rigidity. Babinski's and Brudzinski's signs negative, with retardation of patellar reflexes. 20 cc's. of a clear limpid fluid obtained by lumbar puncture under greatly increased pressure.

Laboratory findings.—March 5, 1929. Cerebrospinal fluid. 20 c.c. clear water-white fluid. Erythrocytes none; cell count 47, mostly lymphocytes, few leukocytes; globulin not increased; no bacteria found in culture or smear.

Blood examination on March 4, 1929, shows hemoglobin 60; color index 83; erythrocytes 3,640,000; leukocytes per cmm 6,000; small lymphocytes 32; large mononuclear 8; neutrophils 58; eosinophiles 0; basophiles 2.

March 5, 1929. Spinal rigidity not present. Brudzinski's sign negative. Knee jerks retarded, mentality less clouded and motor activity more purposive. Occasional cough and moderate nasal discharge.

March 6, 1929: Playing with toys. All reflexes negative. Seems much brighter. Nasal discharge more viscid.

March 7, 1929: Was discharged from hospital much improved.

March 16, 1929: Was brought to office when physical examination was entirely negative and all central nervous symptoms had disappeared.

March 19, 1929: Recurrence of convulsions developed and patient was readmitted to hospital.

Convulsions are of same type as on previous admission, occurring at intervals of one to two hours and lasting from two to four minutes each. Patient dazed and somewhat restless between convulsions, though took nourishment and fluids readily. A lumbar puncture produced 10 cc's of a clear fluid under slightly increased pressure and of a slightly pinkish tinge.

Laboratory findings—Spinal fluid examination March 20, 1929. Amount 5 cc; color water-white; erythrocytes many; leukocytes few; lymphocytes few; cell count 792.5; tubercle bacilli not found and no organisms present; globulin not increased; Fehlings sugar trace.

Blood and spinal fluid Wassermanns on H. J. A. negative; blood Wassermanns on mother and father negative. (March 21, 1929).

March 20, 1929, Roentgen-ray examination of cranium shows an increased intracranial pressure. The irregularity of the outer table of the skull is rather suggestive of lues.

March 21, 1929: No convulsions during twenty-four hours.

March 22, 1929: Spent a good day having had no convulsions in past forty-eight hours.

March 23, 1929: At 5:45 a. m. had a convulsion followed by four other convulsions during the night. Is mentally excited and violent, screaming loudly and tearing at nurse and bed clothes. Profuse expectoration and drooling of saliva.

March 24, 1929: Continuing very restless and violent, takes nourishment well but sleeps only under sedative medication. Spinal puncture at this time produced 5 cc. of a clear fluid under normal pressure.

March 25, 1929: Continues very nervous and violent. Takes medicine and nourishment well. Eliminating well. Temperature normal since 2nd day in hospital. No convulsions and seems less violent, but still mentally clouded and restless. Takes long naps, and has had no convulsions since the night of March 23.

March 26, 1929: Awoke this morning after a 9-hour sleep and because of persistence in sitting up, was allowed in wheel-chair and seems less excited. Nourished well, temperature continues normal: No convulsions.

March 27, 1929: Nervous condition much better today, had a 3-hour nap, took all medicines and nourishment well and seemed more lucid. Sleeps well at night.

March 29, 1929: Resting well, no further convulsions. Nourishes and eliminates well.

March 30, 1929: Condition same as on previous day and on March 31 was discharged from hospital.

From March 30, to April 9, patient seemed normal and rational, though had developed a gait resembling paralysis agitans, while speech continued somewhat inarticulate. At this time a typical epileptic seizure developed and because of the remote possibility of lues, as suggested by the roentgen-ray report, antiluetic medication was administered. Because of aggravation of all symptoms following this plan of treatment, it was abandoned. Convulsions continued, 3 to 5 seizures daily, from April 10 to April 25, following which the patient's gait became more nearly normal and seemed better in every respect. Since April 25 epileptic seizures have recurred at intervals of 2 to 4 weeks. Mentality is sluggish and a slight impairment in gait persists.

August 2, 1929: Patient shows definite signs of mental deterioration with dull expression, fixed stare, and almost unintelligible muttering; drooling of saliva; complete lack of concentration and disorientation to time and pace. Marked insomnia, associated with a desire to be out of bed, alternating with periods of stupor, when he goes into a temper-rage if asked to leave the bed. Walks with the typical gait of paralysis agitans, and shows a coarse tremor of hands. Incontinence of urine and feces persists. Epileptic seizures continue severe, and occur every two or three weeks.

Following this last observation, patient became so violent and unmanageable, it became necessary to place him in an institution.

Since beginning of institutional care the patient has been having typical epileptic seizures every three or four weeks, while mental deterioration has been slowly progressive. The parkinsonian gait and the coarse tremor of the hands have persisted.

COMMENT.

Both cases presented the mental and neuromuscular phenomena usually seen in encephalitis; the spinal fluid findings reinforced a first impression of epidemic encephalitis in the first case (R.C.B.), and established a diagnosis of encephalitis in the second case (H.J.A.), where the presence of a definite nasal discharge in conjunction with a red-denied pharynx and a history of repeated influenzal infections caused a suspicion of influenzal meningitis. The latter case was undoubtedly influenzal in origin, though no signs of meningeal involvement ever presented.

Both cases confirm an earlier observation that encephalitis may recur in the same pa-

tient with variable symptoms, thereby evidencing the later changes of the same pathological involvement. The development of epilepsy as a residual appears as an end-result of chronic, progressive subcortical involvement, with sclerotic changes extending to or including cortical areas either through direct extension, or by traction of developing scar tissue on the cortex. Whether a post-encephalitic epilepsy is permanent is not known, because of limited observation through comparatively recent recognition of these cases.

Administration of ketogenic diets exerted no inhibiting effect whatever on the epileptic seizures in either of these cases.

Case R. C. B. is now a problem child and in spite of his year of complete absence from all symptoms will continue a potential epileptic of the milder type. Because of the rapid and extensive mental deterioration of case H. J. A., this patient will remain a permanent institutional case. The prognosis in any case should always be guarded, and, while not serious as regards life is always a potential menace to perfect development of the central nervous system.

REFERENCES.

1. Hall, A. J.: Brit. W. J. 1:110-111, 1925.
2. Gorter, E.: Several forms of curable meningitis and encephalitis Nederl. Tijdschr. and Geneesk 72:4489, 1928.
3. Throckmorton, T. B.: Intermittent muscular spasms, resembling Jacksonian epilepsy complicating recurrent epidemic encephalitis. Jour. Iowa State Med. Soc. 20:11-15, 1930.
4. Price, G. T.: Epidemic encephalitis, recurrence of symptoms 1½ years after apparent recovery. J. A. M. A. 78:716, 1922.
5. Tilney and Howe: Epidemic Encephalitis, published by Paul Hoeber, N. Y., 1920.
6. Halliday, Quart. Jour. Med. 18:300, 1926.
7. Beverly, Bert L.: Encephalitis in children, Amer. Jour. Dis. of Child 37:600-610, 1929.
8. Kennedy, R. L. J.: Amer. Jour. Dis. Child. 28:158, 1924.
9. Anderson: Quart. Jour. Med. 16:173, 1923.
10. Lemos, M.: Intermittent claudication. Rev. Neurol. 40:425, 1924.
11. Wimmer, A.: L'Epilepsie dans L'Encephalite Epidemique Chronique. Rev. Neurolog. 2:269-76, 1927.

CASE REPORTS AND CLINICAL SUGGESTIONS

INACCURACY OF CLINICAL THERMOMETERS.

OSCAR W. BETHEA, M. D.,

NEW ORLEANS.

About two years ago I became impressed with the frequent inaccuracy of the clinical thermometers in common use, and in order to investigate the conditions that obtained in this particular field, I adopted the following plan:

I bought the best obtainable thermometers, several at a time, and sent them to the Bureau of Standards at Washington for standardization. I first tried the plan of placing two of these correct thermometers under the tongue of a patient, letting them remain for five minutes and comparing the readings. Repeated trials indicated the almost absolute correctness of the test if sufficient care was used in the procedure. I then began to test the thermometers in the homes of my patients, and while this was frequently inconvenient I have succeeded in thus checking the family thermometers in one hundred and sixty-four homes. The manufacturer's name could not always be determined, as many of the instruments only bore the name of the distributor. But altogether there were forty-three different labels and most of the common makes were represented. The results were as follows:

Correct	63
+0.2° F.	40
+0.4° F.	31
+0.5° F.	5
+0.6° F.	7
+0.8° F.	2
+1.0° F.	1

+1.4° F.	1
-0.2° F.	5
-0.4° F.	7
-0.8° F.	2

It will be noted that about one-third of these are so inaccurate that the information obtained might be decidedly misleading. In one hospital where this investigation was carried out, the thermometers were so uniformly inaccurate that the entire stock was thrown away and new thermometers of a different make were purchased. Illustrative of the conditions that have occasionally developed the following case will be of interest. A young lady attending a college in a distant city came to New Orleans for the Easter holidays. She complained of a slight headache, the family took her temperature and found that the thermometer indicated some fever. She was kept in bed throughout the entire Easter vacation as she still showed elevation of temperature. The family had not considered her sick enough to call in a physician, but I was summoned only when her return to school became a matter of importance. I found a perfectly well young lady and a thermometer that registered about +0.8° F. too high.

The usual inaccuracy is in the form of an elevated reading. This is due to a thermometer being finished and put on the market while it is still "green." A small amount of shrinkage later takes place and this has the tendency of forcing the mercury upward.

For the last two years I have made it a rule to accept no temperature charts from patients without having them submit their thermometers for testing.

REVIEWS

NOGUCHI

by

GUSTAV ECKSTEIN.*

A REVIEW

by

RUDOLPH MATAS, M. D.,

NEW ORLEANS.

No one who is at all familiar with the events that have marked the progress of the medical sciences in the last three decades can fail to recognize in Hideyo Noguchi an outstanding figure in the great advance of the century. To those who, like the writer, have had the privilege of a personal contact and watched him at work in his laboratory at the Rockefeller Institute, of New York, it is likely that they will retain not only the impression, but the conviction, that Noguchi was, in his own field of research, one of the greatest of contemporary scientists, an artist who worked in the technic of science with consummate skill, with the artistic fervor of a great virtuoso and achieved with an artist's vision.

But no one, whether he be merely a reader interested in the human side of a great man's life, or a physician chiefly concerned in the psychology and mechanism of scientific achievement, can read the story of the great Japanese master, as told by Gustav Eckstein, without being thrilled and electrified by the driving power of the narrative.

The Story of Seisaku, later known as Hideyo Noguchi, is that of a child born, in 1876, of poor peasant farmers in the village of Okinajima, an obscure province of Japan. The father was an intemperate n'er-do-well, but the mother,—Shika, was a sturdy and devoted woman who had seemingly inherited the heroic qualities of some of her yeoman ancestors, vassals of the

Lord of Aizu,—which she apparently transmitted to her son. Unfortunately, the child when only beginning to crawl, fell into the family Urori,—an open brazier filled with live coals, which so terribly burned him that he barely escaped with his life and was left with a scarred hand which was little more than a stump. Despite this handicap, which made it look as if Seisaku would have no prosperity either as a "farmer or as a hero," he rose out of his poverty and other discouraging obstacles, to attract the attention and affection of his teachers. These, from his earliest school days, were struck by his precocity and extraordinary aptitude for acquiring knowledge.

At the primary schools the children jeered and taunted him for his deformity and ragged clothes. But he fights. "Seisaku does not come of Samurai, he comes of farmers; farmers settle things with their fists, even *one* fist." And he rises and the boys soon learn that he is cleverer and stronger than they; and when it comes to science, drawing and English, he is as good as the teachers themselves. He becomes a *Kyūcho*, chief of the class, and no one would now dare to be rude to him.

Ever conscious of his affliction which keeps him aloof of all boyish companionship, he is taken by one of his teachers to Wanatabe San—a celebrated local surgeon of European and American training, in the distant town of Wakamatsu, who becomes interested in the boy and performs a plastic operation which releases the stumps of his burnt fingers out of the mass of scar. "The stumps now become movable. Each stands by itself, each moves alone, and the scars that glued the hand to the wrist are severed through. The hand hangs quite like anyone's hand." The operation works a miracle in the boy's hand and in the boy's mind. His youthful imagination is fired by the success of the operation and he resolves to

*Harper Brothers, New York, 1931, 8° Portrait and 13 illustrations, 419 pp. \$5.00.

become a doctor. Yes, not only a doctor, but a Napoleon in his profession. "Not to fight battles, not to kill people, but to save them with a will of a Napoleon." The surgeon keeps him as one of his "drug boys,"—a sort of apprentice, and with this he reaches a decisive point in his career.

Among the Japanese doctors who practice in the countryside, there persists many traditions of Chinese Medicine. Burning with the noxa is a remedy for many ills, more powerful than many modern doctors think, "even a cure for stubbornness in boys," and one of the doctors goes so far as to say that the burning of Seisaku's hand, has put something into his blood and it is that which gave Seisaku strength to stay up so, 'night after night, eternally reading and learning from books." For weeks, it is quite true, he has not so much as taken off his clothes. When late at night Wanatabe looks where the drug boys sleep, he always finds the youngest still awake. The boy "is Heaven and Earth for learning." Drug boys are supposed to bring their own bedding, but Seisaku has none and he sleeps on straw as he did at his mother's home on the farm at Okinajima. After all, "one sleeps but three or four hours a night and for that length it is possible to sleep soundly, even under the Master's desk."

A curious episode occurs while he works with his master, Wanatabe. A patient comes with a strange, long continued, undulating fever. The doctor prepares a slide with some of the patient's blood and to his surprise discovers among the corpuscles a minute spiral organism,—the spirocheta of relapsing fever! Wanatabe is excited by his discovery. He calls the drug boys and all five come running. They all see it. Seisaku sees these strange little corkscrew-like bodies and he lingers long at the microscope. This is fate . . . His life was changed looking into that microscope and when he steps back from it, he says a few words that would strike anyone as queer. He says that he *now* knows not only that he will be a doctor, but the kind of doctor,—

a bacteriologist. It is probable that one or the other of the drug boys laugh, but Wanatabe, the master, does not laugh, for Wanatabe remembers how, with the same suddenness, this little Seisaku a little while ago, made up his mind to Medicine as if he did not have to think, as if he knew directly what he ought to do.

And when Wanatabe leaves for the war with China he puts Seisaku, the youngest and the latest comer, in charge of his dispensary. When the war is over and Wanatabe returns, he is amazed at the meticulous care that Seisaku has given to his accounts and, what is more, at the extraordinary amount of knowledge that the boy has acquired and stored during his absence. After a few questions, he decides that Seisaku is ready for the first examination at the Medical School at Tokyo.

With the aid of his teachers and contributions from friends, and impelled by his own limitless ambitions and tireless industry, he graduated after many curious experiences, in the Medical School at Tokyo. There he came in contact with the great Japanese masters of bacteriological research, Kitasato, Shiga and other superior minds, who encouraged his natural bent to the study of microscopy and bacteriology and pathology.

How he changes his name while a medical student from Seisaku to Hideyo is interesting. One day he picked up a novel by a popular Japanese author, which was creating a good deal of popular discussion. "The Life of a Contemporary Student." What is odd is that the hero has almost his own name,—Nonoguchi Seisaku. What is odder, is that the hero is also a medical student and, oddest of all, is, a student of the highest promise who, caught between women and drink, comes to a bad end. It is only a story, but Seisaku worries to think that he may go through life with a name tainted in a novel. After long meditations he decides to change his name from Seisaku to Hideyo. *Hide*,—the first name of one of

his teachers, (Kobayashi) meaning "great man," and Yo—"the world;" which put together,—“Hideyo,”—means a great man of the world. He consults his old teacher and mentor, Kobayashi-san who ultimately approves, and henceforth the name Seisaku, d'sappears and Hideyo Noguchi remains for the rest of his days.

In the meantime, through his own unaided efforts he had acquired a working knowledge of English, German and French. After his graduation an opportunity presented itself to accompany a Japanese government commission to study Bubonic pest in China and he profitted by this experience to improve his practical knowledge of medicine and to master the Chinese language, an acquisition which, when combined with his other linguistic abilities, gave him great advantages over his associates. In 1900, chance brought him in contact with Dr. Simon Flexner and Mr. Frederick Gay who stopped at Yokohama, where Noguchi was stationed as quarantine physician. His ambition had been, for years, to study and develop a scientific career in America, and this meeting served as the first link in the chain that bound him with the ties of a grateful affection to Dr. Flexner for the rest of his days.

In 1900, when he had just attained his twenty-fifth birthday, with only a few yen and his brain as his capital, he crossed the ocean and landed in Philadelphia, where through the patronage and kindness of Dr. Flexner and Dr. S. Weir Mitchell, he was given employment as a volunteer assistant in the University of Pennsylvania. There he began to work under Dr. Mitchell's direction, on the venom of snakes, especially the toxins and antitoxins of the American rattler, and soon attracted attention by the thoroughness and originality of his work. This earned him a Carnegie scholarship which he utilized with great profit for a year of study in the Serologic Institute of Copenhagen, under Professor Masden, later to be his life long friend.

Thus began his American career which was to continue uninterruptedly in the ascendant for the remaining twenty-seven years of his life. At the Rockefeller Institute in New York he rapidly rose to celebrity as an original and prolific investigator in bacteriology, serology and immunology. Before he had attained the early maturity of his manhood he had reached the summit of scientific achievement. He continued to rise and his fame was world-wide, with honors showered upon him by the learned societies of all countries. He had apparently reached the zenith of his career when he was stricken and died in his fifty-second year, on May 21, 1929, at Accra, British West Africa, a victim of Yellow Fever—a disease which he had relentlessly pursued and striven to conquer with all the science, the energy and the weapons at his command.

This is brief, is the skeleton outline of the extraordinary life of the Japanese savant, which has served as the foundation for Gustav Eckstein's intensely dramatic biography—a biography, which he has invested with a compelling interest and fascination that is all absorbing and unyielding, from the beginning to the end of the book.

* * *

The prospective reader must not expect to find here a scientific or technical treatise on Noguchi's discoveries and methods, or even a bibliographic record of his work. To do justice to this phase of the subject it would require not another book, but a large space in a library to hold the Bulletins of the Carnegie Institute in Washington and the whole series of volumes of the Journal of Experimental Medicine, the organ of the Rockefeller Institute, which, since 1902, was the chief repository of his publications. In this, are contained innumerable monographs and papers which, from the date of the foundation, were of sufficient importance to command the attention of his fellow scientists throughout the world.

Each of Noguchi's scientific achievements, and they were legion, beginning with his earlier work on the toxins and antitoxins of venomous snakes (1901-1904) and ending with his unfinished studies on the specific bacteria of trachoma, so laboriously pursued in the Indian reservations, of this country (1926-1928), and which were published after his death—would do honor to as many experts. These achievements are not overlooked, or is their scientific importance minimized by his all searching biographer, but the scientific side of the man is made far more interesting by the telling of how Noguchi worked in his creative moments—while elaborating his ideas and by the part that his discoveries played in the drama of his life. Each one of his most important discoveries furnishes material for reflections, episodes and anecdotes, all of them very diverting and many of them quite amusing. In this way we follow the scientist and the man with all his human attributes, as he moves and thinks and works in his laboratory and in his home, where the work continues for the twenty-four hours without knowing when the night is ended and the day begun. He had been told in his childhood that Napoleon only needed three hours for sleep, but he decided that he could do even with less. Often when he was working on a specially important problem he would be seized with a frenzy for work and remained for days and nights in his laboratory, appearing at home only for short intervals to reassure his wife.

The discovery of the *treponema pallida*, by Schaudinn, the germ of syphilis, in 1905, roused in him a passionate interest in this organism and in the whole spirochetal family, an interest which had been kindled in his boyhood when he had a view of a spirocheta, the spirillum of relapsing fever, in the microscope of Wanatabe, the surgeon of Wakamatsu, when working for him as a boy apprentice in his office. After 1905, Noguchi soon became the leading authority on the spirochete and by differen-

tiating the various species which are closely related morphologically to the *treponema* of syphilis, and discovered other species which contributed very materially to the differential diagnosis of the disease itself. He added to the usefulness of the Wassermann test by simplifying it and by further developing (1910) his luetin skin reaction. He was the first to make pure cultures of the *Treponema* of syphilis and again, in this way, he simplified the identification of the parasite and made it easier to inoculate in pure cultures upon the experimental animals, the monkey and the rabbit. Following this, came his discovery of the syphilitic nature of general paresis of the insane and of locomotor ataxia (1911-1913) a discovery which not only revolutionized the etiological concept of these diseases, but their mode of treatment. Alongside of this work he experimented successfully with the virus of rabies, of vaccinia and of herpes, of infantile paralysis, and with the germ of Rocky Mountain spotted fever and added vastly to the knowledge of these diseases. Later, he traveled to Peru where he studied the Oroya fever of the Andes and the fearful Verruga disease of that country, and there determined, after months of patient and laborious experimentation, that these diseases were caused by one and the same organism which he identified for the first time, as the *Bartonella bacilliformis*. These and many more achievements which we need not mention, sufficiently attest his unparalleled industry and scientific productiveness.

In 1917, he was profoundly prostrated by an attack of typhoid fever from which he barely escaped with his life. He was still an invalid when he was invited by General Gorgas to head a mixed American and Latin American Commission to investigate the causes of Yellow Fever, where it was still prevailing endemically in Ecuador, Peru, Brazil and Mexico. By that time the truth of the mosquito theory of yellow fever transmission, so long upheld by Car-

los Finlay and triumphantly demonstrated in Cuba (1901) by the epochal labors of Walter Reed, Carroll, Lazear and Agramonte of the United States Army Board, had already asserted its supremacy over yellow fever wherever the mosquito could be excluded, eradicated or controlled. Under the leadership of Gorgas, or by adopting his methods, it had been stamped out in Cuba, the Panama Canal, Louisiana and the Southern United States, the ports of Mexico, Brazil and other countries in which the same anti-mosquito principles had been applied. But it was plainer every day, that with increasing travel and with relaxing vigilance old foci would flare up after they were believed extinct. In 1918, the prevention and control of yellow fever epidemics was no longer a theory but a fact wherever mosquito eradication could be efficiently carried out. But the discovery of its essential cause with a view to its prevention in the exposed individual, and its cure after it had developed, was the problem facing Noguchi when he was summoned to Ecuador and Peru to further investigate the disease from this view point. He lost no time in preparing for the expedition under the auspices of the Rockefeller Health Board, and was on the field at Guayaquil, in 1918. Gorgas believed that when the cause of Yellow Fever would be found it would prove to be an organism very like the germ of infectious jaundice (Weil's disease), and Schaudinn, the discoverer of the spirocheta of syphilis, predicted that a spirocheta would one day prove to be the cause of yellow fever. Noguchi's long and exhaustive study of the spirochetæ, in connection with his study of the treponema of syphilis, had prepared him specially well for this task. He had already introduced the name *Leptospira* (*lepto*, slender, *spira*, spiral), to designate the specific spirocheta of Weil's disease which he had previously investigated and differentiated in many human and rat strains. In Guayaquil, he was soon able to isolate and cultivate a leptospira from

the blood and organs of yellow fever patients which was morphologically identical with that of Weil's infectious jaundice. After a prolonged series of experiments he was convinced that this organism was different from that of Weil's disease and that it was specific for yellow fever. He therefore named it the *leptospira icteroides* to distinguish it from the *leptospira icterohemorrhagica*. He also believed that mosquitoes were infected by this germ and that they could transmit yellow fever to the guinea pig, as we then thought, a susceptible animal. Apparently the same organism was found in many of the yellow fever cases in Peru, Mexico, and later, in Bahia, Brazil. A vaccine prepared with Noguchi's *Leptospira* appears to have had some prophylactic effect on a body of non-immunized Ecuadorian troops.

The majority of the doctors who were associated with Noguchi agreed that he had found the specific cause of the disease and he was accorded a perfect triumph by the government and people in Ecuador on the eve of his departure from Guayaquil. But there were others, even some of his associates who were not willing to accept his discovery as a reality, and objections came especially from Cuba, Brazil, Mexico and the European possession in West Africa. He was beginning to feel the weight of these objections when news came from the Rockefeller Yellow Fever Commission in West Africa, that monkeys and not guinea pigs, were susceptible to yellow fever by direct inoculation even by direct inoculation even by mere epidermal friction as well as by a mosquito inoculation from human subjects, a hitherto unknown fact. But what was more disconcerting was that in the human subject as well as in the monkeys, Noguchi's leptospira, or a leptospira which presented the specific characters that he attributed to it—was absent! He then abandoned his work in New York and started for Accra in West Africa on what

was to be the last of his argonautic expeditions in quest of his deadly tropical foe.

* * *

"The gods (of Medicine) are frankly human, sharing in the weaknesses of mankind, yet not untouched with a halo of divine Romance." (Blakeney).

Throughout the book, the author lets Noguchi speak for himself, and it is amazing to what extent Eckstein has been able to convey to us the impression of his living personality. To do this he collected Noguchi's earliest correspondence with his Japanese teachers, friends and others before and after his advent to America. It is evident from this that Noguchi's letters must have been treasured by those who received them. Whenever these are lacking, Eckstein reproduces many of Noguchi's diary-like notes which appear to have been interspersed among many of his papers. In these, Noguchi gives free vent to his own thoughts and reflections upon all the subjects that at the time interested him. In addition, the author seems to have saturated himself so thoroughly with the early environment of his hero in Japan, and made himself so conversant with Japanese customs, traditions, mode of thought and expression, that at times one wonders how a foreign writer could have so thoroughly immersed himself in the Japanese atmosphere and yet preserve his occidental identity. The author has put an immense amount of labor in consulting and recording the observations and conversations of Noguchi with his intimate friends and others, who lived in close touch with him in his bachelor days and in his married life, but Eckstein's literary craftsmanship is too fine, too fluent, to allow this hard work to become apparent.

Some of the most interesting and delightful passages in the book are those which record Noguchi's habits, his moods and humors, his absentmindedness, his improvidence in regard to money matters and his eccentricities which were revealed in the intimate circle of his domestic life.

Perhaps these were best told by his devoted wife, an American, Miss Mary Rudis, whom he married in 1911, in his thirty-fifth year, and to whom he always lovingly refers to as "Maizie."

Here are a few samples: Before his marriage he occupied an apartment with a Japanese room-mate, Araki. Between the two they do the cooking. Sometimes it is necessary to watch the boiling rice. Araki does not like to, but Noguchi is always willing, brings his chair into the kitchen, puts the chair up to the gas range and props up his feet and continues to read. Suddenly he turns to Araki, "What is the smell?" He seems never to grasp that the smell could come from the boiling rice that he is watching. Araki snatches the cover of the boiler. Noguchi looks in. He shakes his head. "Yes, it's gone, we go out to eat."

"He goes to the restaurant. The waiters know his way and begin to serve him, never asking Noguchi what he wants, because Noguchi always wants the same thing. Noguchi does not say a word, not even in the beginning for politeness. Right away opens his book, puts it next to his plate and no one disturbs him. Yet Araki cannot help noticing how Noguchi eats, because that's peculiar. He pokes his fork toward his plate, has no idea what he is poking at, but whatever it is at the end of the fork, he puts in his mouth; and when he is using chop sticks, it is remarkable—to carry rice from a bowl you don't see."

After he married, he soon transformed his kitchen and dining table into a laboratory. To begin with, "Maizie" has always to be pushing the microscope and papers off one end of the table so as to be able to lay the cloth half way. Before the meal is over he is stepping around to the microscope, sharpens a pencil and spreads his yellow note paper around and lights a cigar. Presently Maizie has the table cleared, the dishes washed and is back in the dining room. She would rather "Hidey" were at his microscope than writing. If

he is writing when she talks, suddenly he will throw down his pencil "I can't write." Then she has to be still. But if he is at the microscope, she reads and he listens and it is astonishing how well he remembers everything that happens in those old tales."

"Plain that there is little leisure in this married life. 'Hidey' is always at that Institute. How he loves that place, and he has not enough with working there, but must bring it home with him and is filling the kitchen with it. That kitchen is a sight. He takes pictures of germs and develops the pictures and slops water over everything. Maizie complains. He answers that she must come and see. 'Oh! it is lovely, Maizie, it is lovely.'"

At the Institute he is a different person; there his individuality is all submerged in his work. He does not indulge in any fancies or laxities of action or speech. There he is all in his technics, there he is a "flat wall." As one there, who sees him well, says, "a flat oriental wall."

The following incident is perhaps as typical of Noguchi's home life while working on an important problem, as any in the book.

At the time when he was searching for the *spirocheta pallida* in the brain of insane paretics, a characteristic incident occurs. He arrives, after a hard day's work, from the Institute with a batch of 200 slides which he has stained and prepared for inspection at home that night. He is tired with the grind of weeks of continuous work and feels the need of diversion. After supper he plays chess, his favorite recreation, with his neighbor, Hori, until past midnight. The game exhilarates him and he feels invigorated. His wife has long since retired and calls him to bed. The night is cool and refreshing and he is wide awake. The silence is conducive to the best work. It is now past one o'clock and he decides to look at his slides. He has been examining a batch of 200 freshly stained slides every night for the past

week, but has not yet been able to find the spirochete, which he is confident, nevertheless, is there. He has examined the first hundred slides, has entered on the second hundred, presently he has examined the one hundred and fiftieth, the hundred and ninety-ninth: Nothing! Then he examines the two hundredth—the last for the night. He looks it over carefully like the others; back and forth, back and forth—ah! they are there, and in the two hundredth slide! Who would believe it! They are there in numbers. He calls, "Mazie, I think I've got them." He lights a cigar, he is terribly excited. He looks again. "Yes, I've got them!" There is no possibility of mistake. He had been looking for the spirochetes as minute rolled up bodies, but there they are, really full sized spirochetes, and he has missed them in the other slides because their thread-like bodies were intimately blended and camouflaged among the brain dendrites. In the week that followed, it was fully established that the spirochete of syphilis was firmly entrenched in the brain of insane paralytics, and that general paresis was in reality a syphilitic disease. A wonderful, reverberating fact!

Several stories are told of his reckless improvidence. Noguchi had no more idea of thrift or the value of money than a child. He showed this very early in his career, when he spent the 300 yen that his friend Chinaki had given him, with much personal sacrifice, to pay his passage to America. Every bit of this was spent on a great farewell party given to his friends the very night before sailing! Thanks to the same indulgent friend, his passage was paid; but this time, on the steerage. On arrival in San Francisco, he writes to this friend: "At my departure you showed me kindness, like sea and mountain, and I say thanks ten thousand times. I wait every inch and moment to hear from you . . . please remember me to all who have eaten out of the same kettle. With bent neck." (signed).

In regard to his thoughtlessness about money matters, Dr. Kligler who was associated with him in the yellow fever expeditions to Peru and Ecuador, writes that "he had assumed the impossible task of keeping Noguchi's accounts straight for him. They never balanced. He never could say at the end of the day what he did with the money he received in the morning. He just put it into his pocket and handed it out again. I am not sure that on several occasions he did not hand out five dollar bills instead of ones. At the end I gave up trying. I gave him small sums, paid for him when I was about and let it go at that."

Here is a quotation that shows that whatever his other weaknesses, his little vanities, he did not allow flattery to cloud his clear judgment about himself. Someone in Japan had written his biography in very eulogistic terms. "It is a bad book. No man is perfect like that book, and no man would want to be perfect like that book. That is not a human being. Life does not go on in a straight line like that. It goes up and down. It is only in the story that it does not go up and down."

And so we go on to the end of the book, reading page after page with increasing fascination until we come to the end and we feel that we have not only read the book, but Noguchi himself. We seem to have lived with him, we have heard him talk and think. We are familiar with his habits, his frailties, his mercurial temperament, his soaring and ever unsatisfied ambitions, his joys and his sorrows and his extreme sensitiveness to all sorts of impressions and suggestions that affect his personality.

Throughout all this extraordinary portraiture, we recognize the exotic, psychic and physical orientalism that is inseparable from Noguchi's individuality. He is a bundle of contradictions. On the one hand, primitive, emotional, self-indulgent and as wayward as a child, in his purely human relations. On the other, tremendously dis-

ciplined, self-restrained and completely oblivious to the demands of the flesh, when he is at work—sublimated in his laboratory in the pursuit of his task.

When one of his Japanese friends in referring to him mentions the word "genius" he loses his temper. "What! It is *hard work* that is genius. To work three, four, five times harder than anyone else—that is genius."

And who can doubt after reading this prodigious recital of his dynamic life that Noguchi was the incarnation of the Master Word—Work!

Ah, yes! "The colossal energy which gave him the ability to work for weeks without sleep when the fire of accomplishment burned in his brain. A tremendous passion for research combined with an infinite patience and persistence in the accomplishment of his ends," and, what is more, the capacity to devise means for the attainment of his purpose that were not common to other men. That is genius!

* * *

"O think not of his errors now; remember
His greatness, . . . all the noble exploits of his life,
And let them, like an Angel's arm unseen,
Arrest the lifted sword."

(Coleridge: Death of Wallenstein.)

To the veterans of the profession and to the people of New Orleans and the South who can still vividly recall the terrors of yellow fever and the perennial anxiety in which they lived until 1905, when the great sanitary victory won in the summer of that eventful year, relieved them of that frightful bondage—the tragedy of Noguchi's death appeals with special pathos and significance. The sad part of the story lies in the fact that Noguchi believed with absolute conviction that he had unravelled the mystery that surrounds the cause of yellow fever and that the scientific world, trusting largely to his proven genius, had shared this belief with him. But as in so many instances, which so deplorably abound in the mournful epic of this disease, the exulting

victory of today is but the prelude of the defeat and despair of tomorrow, and so it was with Noguchi and the leptospira which he believed secreted the toxins of yellow fever. These he thought he had trained and tamed like the venomous snakes which he had handled so fearlessly in earlier years—and made yield their poison to make the protective antidote against their own bite. But he, like his favorite hero, Napoleon, whose life had been one long paean of victory—now had to face his Waterloo. The evidence which had been steadily accumulating in the course of the years that followed the glamorous triumph at Guayaquil, was coming from all sides to disprove the protective value of his vaccines and antitoxins, and even the existence of his specific leptospira was denied.

That he, the master mind and peerless investigator should have been deceived and his discovery of the leptospira icteroides, as the specific germ of yellow fever, should prove to be only the ghost of a great hope, was a thought that terribly depressed and humiliated him. Was his leptospira destined to follow in the funereal train of the micrococcus xanthogenicus of Freire, the Peronospora lutea of Carmona, the specific enteric bacillus of Gibier, the micrococcus tetratenus of Finlay, the bacillus icteroides of Sanerelli, and of so many other great delusions that dolefully testify to the fallacy of the scientific imagination and that now remain in history only as the dead ashes of long extinguished camp fires!—that was the question which was, no doubt, more than galling to this supersensitive man.

But what no doubt affected him more deeply was the unswerving loyalty of the great philanthropic foundation which regarded him as one of its foremost exponents, and legitimately prided itself in his great achievements. The Rockefeller Institute held fast to its faith in his genius, and, despite the great sum of money that had been spent fruitlessly to distribute his vac-

cines and serums all over the world,—never deserted him.

Though depressed, ill (he had a cardiac lesions and was a confirmed diabetic) and careworn,—he was not defeated. Spurred by intolerable doubts and by the supreme desire to vindicate himself in the eyes of the scientific world, he braced himself to meet the storm of antagonism that was gathering about him, and decided—despite the appeals and remonstrances of his wife and friends—to embark at once for Africa, fully determined to pluck victory out of seeming defeat. He left New York for Accra (Gold Coast, British West Africa), on October 27, 1927. Arrived at Accra, he surveyed the field which furnished the clinical material and a large menagerie of Rhesus and other monkeys which had been lavishly provided for his experimental researches. There he pursued his quest with the same indomitable will and sleepless energy that characterized all his scientific undertakings. Sometime after he had settled in his African laboratory, he wrote to his friends in America: "My work is so revolutionary, that it is going to upset all our old ideas of yellow fever." He thought he had something new. Another organism—which was fatal to the animals in which it was injected—black vomit in their stomachs and great destruction of kidney and liver." But he was cautious, non-communicative, keeping his counsel to himself. Even Alexander Young, the able chief of the British station for yellow fever research at Accra, who was devoted to him, did not know what was in Noguchi's mind. It is evident that Noguchi had lost all hope in his spirocheta. He was so convinced that African yellow fever was not the disease that he had dealt with in South America, that he appeared to have scarcely looked for it. "Whether the South American disease is also not Weil's infectious jaundice, but a third disease, who can tell? He soliloquized: 'Not likely that he went altogether wrong, yet he may, and if he did, and he finds the right now, what's

the difference. But suppose he does not find the right now?" "Sometimes in the dawn, after a whole night spent in feverish poring over his microscope and his cultures, he looks gray and sick, and in the snap shots taken of him by enterprising visitors, he makes no effort to hide his crippled hand. Lets it lie there staring. It proves how tired or how indifferent, or possibly even how done, how through with the last vanities." Once he is speaking passionately and ends: "This is the sunset for Noguchi and perhaps a bad one." There is sadness about the last days in Accra. An all pervading gloom seems to saturate the place. Adrian Stokes,⁽¹⁾ the brilliant Irish pathologist, had died while working on yellow fever, in his laboratory at Lagos, a few months before Noguchi's arrival. There are many things that forebode evil. Death stalked about the place. Still Noguchi works, works with his slides, his cultures, his monkeys and his little squad of improvised African assistants. "Where he gets that energy is harder and harder to see. It is always daylight now when he leaves his laboratory. Sometimes he burns through the whole night every light in the place, makes everyone wonder, makes this or that one think, how strange. Remarkable that, even in the midst of this intense and all-consuming task, Noguchi should be thinking of other problems. His unfinished work on trachoma made him think of a trip to Egypt to gather more material for his studies before returning home. Finally, he began to say in letters that he believed he

has discovered the cause of the yellow fever of Africa, "but what he sees must be guardedly interpreted, this time he must not be wrong. But what's left to do, right or wrong, can be done under the more deliberate conditions of his own laboratory in New York." There is no absolute reason for prolonging his stay in Africa and he decides to return to New York and sets the third week in May (1928) for his sailing. Whether he had discovered a path or struck a new light that would dispel the prevailing darkness, no one can tell. For his secret, if any, died with him.

Noguchi, who had been immune to the yellow fever of South America, was now stricken with the yellow fever of Africa; he knew his disease and realized its gravity. "If he is convinced that he has found the cause of yellow fever, what he knows of that cause is locked essentially in his own head. There are notes, sealed tubes, and Young⁽²⁾ has followed step for step, but the power to push through to the meaning is perhaps buried in himself. If, on the contrary, he is not convinced it might be easier to die than go back and face his friends." "It is the end and I want to die." Quotes his biographer. He died on the tenth day of his illness, on May 21, the time set for his departure for America. He was buried at sea and the waves that roll over the shores of the Dark Continent yield their secret no more willingly than the immutable Sphinx which is still there, on that African coast, grimly challenging with its riddle the best will and intelligence of civilized man.

(1) Dr. Adrian Stokes, at one time professor of Pathology at Guy's Hospital, London, was appointed chief of the Rockefeller commission to West Africa and died of yellow fever at Lagos on September 19, 1927, age 41 years. He, and his associates Bauer and Hudson, discovered the transmissibility of yellow fever to monkeys and it is probable that he contracted the infection in his experimental work.

(2) Dr. William Alexander Young, head of the British Medical Research Institute at Accra, contracted yellow fever and died in the prime of life, age 39 years, a few days after Noguchi's remains had been buried at sea. It was reported that Young incurred the fatal infection when making a post-mortem examination of Noguchi (Lancet, June 16, 1928).

NEW ORLEANS

Medical and Surgical Journal

Established 1844

Published by the Louisiana State Medical Society under the jurisdiction of the following named Journal Committee:

S. C. Barrow, M. D., *Ex-Officio*
 For one year: W. H. Seemann, M. D.,
 Randolph Lyons, M. D., Secretary
 For two years: John A. Lanford, M. D.
 For three years: S. M. Blackshear, M. D.,
 H. W. Kostmayer, M. D., Chairman.

EDITORIAL STAFF

John H. Musser, M. D. *Editor-in-Chief*
 Leon S. Lippincott, M. D. *Editor*
 Willard R. Wirth, M. D. *Editor*
 H. Theodore Simon, M. D. *Associate Editor*
 Frank L. Loria, M. D. *Associate Editor*
 D. W. Jones, M. D. *Associate Editor*
 Jacob S. Ullman, M. D. *Associate Editor*

COLLABORATORS—COUNCILORS

For Louisiana

H. E. Bernadas, M. D.
 Daniel N. Silverman, M. D.
 C. C. DeGravelles, M. D.
 J. B. Benton, M. D.
 C. P. Gray, M. D.
 J. H. Slaughter, M. D.
 D. C. Iles, M. D.
 J. H. Landrum, M. D.

For Mississippi

J. W. Lucas, M. D.
 L. L. Minor, M. D.
 M. W. Robertson, M. D.
 Thomas J. Brown, M. D.
 Willie H. Watson, M. D.
 W. G. Gill, M. D.
 Jos. E. Green, M. D.
 J. W. D. Dicks, M. D.
 D. J. Williams, M. D.

Paul T. Talbot, M. D. *General Manager*
 1430 Tulane Avenue

SUBSCRIPTION TERMS: \$3.00 per year in advance, postage paid, for the United States; \$3.50 per year for all foreign countries belonging to the Postal Union.

News material for publication should be received not later than the twentieth of the month preceding publication. Orders for reprints must be sent in duplicate when returning galley proof.

THE JOURNAL does not hold itself responsible for statements made by any contributor.

Manuscripts should be addressed to the Editor, 1430 Tulane Avenue, New Orleans, La.

THE CORONARY ARTERY IN HEALTH AND DISEASE.

Under this caption Herrick,* whose reputation as an internist is wide-spread throughout this country, but whose special claim to fame rests upon his accurate original description of coronary occlusion, a condition which is now so generally recognized everywhere as one of the most important causes of sudden death, discusses in a part of his presentation the mechanism of production of heart pain. It is pointed

out that there are two main theories advanced as to the causation of the anginal syndrome. The one ably supported by such outstanding men as Allbutt and Wenckebach, as well as Vaquez, holds the pain is due to a stretching of the diseased wall of the aorta. The older theory contends that pain is due to spasm or disease of the coronary artery or to perversion of function of the muscle supplied by that artery. This theory is the older of the two, but after Allbutt's pronouncements was largely discarded. Now the pendulum is swinging the other way, and an increasing number of physicians are becoming adherents of the coronary artery theory. In substantiation of this statement, Herrick details some twelve arguments which certainly would suggest to the clinical observer at least that heart pain is due to coronary dysfunction. Most of these arguments are old ones, as for example, the fact that nitrites dilate the coronary and relieve pain; that angina is rare in syphilis, although aortic disease is extremely common; that angina is infrequently found in auricular fibrillation; that angina is rare in "chronic myocarditis"; and that adrenalin causes anginal attacks in old people but not in younger individuals in whom there is no presumable coronary lesion. Some of the more advanced theories that would substantiate the coronary idea include the fact that the hypoglycemia of insulin causes anginal pain due to low sugar content of the arterial blood; moreover, anemia may produce anginal pain as a result of insufficient oxygen to the heart muscles when under stress; anginal pain may occur in hyperthyroidism; the heart muscles again being poorly supplied with blood through the damaged artery, when an increased amount of blood is necessary on account of a heightened metabolism; electrocardiographic evidence is very much more suggestive of a muscular degeneration as a result of coronary disease than to disease of the aorta; and certain vasomotor phenomena as Raynaud's disease are associated in a suggestive way with angina.

*Herrick, James B., *Am. Heart Jour.*, 6:587, 1931.

Herrick very justly states that the ultimate decision as to the causation of angular pain has not been reached, and that only through the cooperation of the pathologist and practitioner of medicine, the experimental physiologist and the student of electro-cardiography will the enigma be solved.

A COMBINED MEETING.

The suggestion has been received from various sources that the Annual Meeting of the Louisiana State Medical Society should be held at the same time as the meeting of the American Medical Association, when this latter organization meets the first or second week in May in New Orleans. This idea has been advanced by men not only in the City of New Orleans, but by physicians elsewhere in the State, who maintain and contend that it might be impossible to hold a satisfactory State Meeting immediately preceding the National Meeting. Their contention is that the one would detract from the other. The two meetings come together within a very few weeks of each other; at best not more than three weeks will separate the two. On account of the present economic depression, it is rather an imposition on a man to ask him to give up his practice at two distinct periods of time close together, and to be obliged to defray the necessary expense incident to travel and to sojourn in a strange city.

Not only the New Orleans doctors but those of the State should be anxious to do all that they can to make the meeting of the American Medical Association an outstanding one. If our forces are divided it may well make both meetings unsatisfactory from the point of view of attendance by our State physicians.

Antagonists of this suggestion hold that Lake Charles physicians have already extended a cordial invitation to meet in their lovely city, and that this invitation having

been accepted by the State Association it is in honor bound to go there. Everyone knows that Lake Charles will extend a great deal of energy and time making this meeting a success. It is bound to be so from the standpoint of the entertainment that will be provided and for the hospitality that will be extended, but will the Lake Charles doctors want a meeting without the usual attendance? It is also contended that if a regular scientific program is not presented that the state organization will lose its entity. This argument may be met with the statement that the House of Delegates of the State Society could meet the day before the meeting of the American Medical Association, transact their business, and then adjourn to attend the scientific sessions of the American Medical Association. The non-office holding physicians of the State will be able to select subjects that will interest them from the variegated program of the American Medical Association, and can attend the scientific sessions just as if they were the scientific sessions of the Louisiana State Medical Society.

The Louisiana State Medical Society has not been asked to meet next year in New Orleans. If there was a wide spread sentiment for such a meeting, we feel quite confident that such an invitation would be extended. Physicians of Lake Charles have been so cordial in their invitation, that in return the only equitable, just, fair arrangement would be for the State Society to hold its meeting in this community in 1953.

There seems to be so much sentiment in favor of this suggested course of holding the two meetings concurrently, that it is suggested that the various District and Parish Societies discuss among themselves the plan. If there is a brisk sentiment in favor of holding the State Meeting at the same time as the National, it probably could be arranged. If there is no such general sentiment in favor of this proposition, it need not be entertained any further.

HIDEYO NOGUCHI.

The lives of all men who have attained great eminence in any line of endeavor possess a human interest which attaches as much to their personalities as to their mode of achievement. In dealing with the great men of Medicine, this human interest is legitimately increased by our professional curiosity to know more of their personal characteristics, their habits and their methods in the attainment of their desired ends. From this point of view the life of Hideyo Noguchi, the great Japanese savant, which has been so vividly portrayed by Dr. Eckstein,* and which is at present so justly attracting the attention of the reading

public, is a fine example of a form of biographic literature which appeals with special interest to the medical profession.

But quite apart from Noguchi's vast scientific achievements and the romantic background in which they are set in this extraordinary biography, the tragedy of Noguchi's death appeals to us as Southern doctors with special sympathy as an episode in the baleful history of yellow fever, a disease which is inseparable from the most poignant and unforgettable experiences of the people of Louisiana and of the South.

For these reasons the Journal has deviated from its established rules in regard to the limited space accorded to book reviews, by publishing Dr. Matas' comprehensive summary and sympathetic review of Dr. Eckstein's vividly dramatic biography of Noguchi, in the confident belief that his contribution will be welcomed by our readers as a timely and recreative variation from the more technical literature of this publication.

*In response to the possible query as to who this Dr. Eckstein is, we quote the information which Dr. Eckstein furnished his publishers when asked for an autobiographical sketch.

"Born, practiced dentistry, studied medicine, taught physiology, learned not much, read two or three men, learned a little, came to know two or three women, learned a good deal, made friends with two rats, learned prodigiously, wrote about the rats, continued to write."

HOSPITAL STAFF TRANSACTIONS

VICKSBURG SANITARIUM AND CRAWFORD
STREET HOSPITAL, STAFF MEETING.

July 10, 1931.

Abstract: Microcephalus—Dr. G. C. Jarratt.

Patient—Freddie S., colored, male, aged 4 years.

Chief Complaint: Does not talk, walk, or sit alone. Very greedy.

Present Illness: Mother states that child seemed normal in every respect up until he was three months of age, at which time he began to have generalized convulsive seizures that lasted from two to twenty minutes and would have as many as eight to ten seizures in 24 hours. This continued until child was about one year of age; there have been none since then. Child has never stood alone. When child is held upright, will stand on toes and not the soles of the feet. Began to pull self up at two years of age. Never has been able to sit alone without support. Says only a few words.

Mother also states that patient has a ravenous appetite and seems "very greedy." When playing with other children is always biting or scratching

them. At the age of eight months an attending physician informed the mother that the infant's anterior fontanelle was closed. She does not know whether it was closed earlier than that or not.

Past History: Chicken pox at one year of age; no other contagious diseases; no illnesses simulating encephalitis or meningitis. Pleurisy at three months of age but not following any illness.

Birth History: A nine months child, weight not known; cephalic delivery with instruments; no convulsions or cyanosis. Nursed well during the first 24 hours; did not cry excessively.

Family History: Mother living and well; father living and well (white). One seven months premature child died at one month of age. Three other children living and well (same father). No tuberculosis contact.

Examination: Poorly developed and nourished and small child for four years of age. Length 34 inches (normal 38 to 41½ inches at four years of age). Child lying on examination table, tossing body about, flexing feet on abdomen and muttering to self.

Head showed flat occiput, depressed in fronto-parietal region; high vertex. Anterior and posterior fontanelles closed. Circumference $17\frac{1}{2}$ inches (normal at four years, $19\frac{3}{4}$ to $20\frac{1}{4}$ inches). Nose prominent; mucoid discharge. Eyes: Pupils reacted to light; internal strabismus of left eye. Reached for objects and grasped them with good co-ordination. Ears: Canals small but deep; both tympanic membranes normal. Mouth: 20 milk teeth; very high palate; tonsils small, innocent. Neck: No glands enlarged. Chest: Rachitic rosary, Harrison's groove. Lungs: No rales, bronchophony, or impaired resonance. Heart: No murmurs, arrhythmias or enlargement.

Abdomen: Spleen and liver not palpated; along ascending and descending colon could feel fecal concretions. Abdominal muscles markedly relaxed.

Extremities: The fingers were short and stubby; the foot is in equino-posterior position and cannot flex on legs due to shortening of tendo-achilles.

Genitals: Phimosis, both testes in scrotum. Skin: No rash.

Central Nervous System: Knee jerks present and normal; Babinski and Brudzinski negative; muscles very flabby but no spasticity. Pupils normal. Child very evidently mentally unbalanced.

Laboratory: Wassermann, Kline and Young, and Kahn tests negative. Urine shows slightest possible trace of albumin; slight trace of indican; rare abnormal red blood globule and rare pus cell.

Diagnosis: Microcephalic idiot.

Discussion: The features in this case that make the diagnosis evident are: (1) Cranial circumference below normal; (2) Flattened occiput with recession of fronto-parietal areas; (3) Dwarfism; (4) Pointed vertex; (5) High arched palate; (6) Prominent nose and the very low grade of mentality with inability to walk, sit alone, or talk.

This defective development has been explained by Virchow's theory of premature ossification of the cranial bones, but according to Sachs, is probably due to atrophic changes, which are the result of hemorrhage or inflammation affecting the brain and its membranes.

Pathology: Brushfield and Wyatt* report the pathology of the brains at autopsy of 10 cases with evidence of microcephalus as follows: "In every case the meninges revealed signs of chronic inflammatory changes. The dura was thickened and sometimes adherent to pia-arachnoid and a degree of external hydrocephalus was a common feature. The lepto-meninges were thickened and opaque with a gelatinous exudate extending over the cerebral

hemispheres around the sylvian fissures to the base.

"The brains corresponded to the shape of the cranium. The under-development of the cerebral hemisphere was a striking feature of most of the brains. The hypoplasia was most marked in the parietal-occipital bases. The cerebellum was never affected to the degree of the cerebrum."

Conclusions drawn from the examination of these brains was that the underlying causes were at work before birth.

VICKSBURG HOSPITAL STAFF MEETING.

June 11, 1931.

Abstract: Ectopic Gestation—Dr. I. C. Knox.

Patient—Mrs. R. T. R., white, female, married, aged 33 years. Admitted to hospital June 6, 1931.

Family History: Negative except that mother had cancer of the cervix.

Personal History: Patient is a housekeeper by occupation; has been married five years. One child living and well. General health has been excellent.

Past History: No serious past illness except appendicitis, 11 years ago with peritonitis; appendectomy performed at that time. Tonsillectomy performed at that time. Tonsillectomy, 7 years ago. Patient at the present time has varicose veins of the legs.

Present Illness: Patient was diagnosed as being pregnant in April, 1931. Condition was not remarkable except that the periods returned at the regular time each month. The flow was scant and lasted only one day. On April 28, the patient was washing dishes. She developed a sudden, severe pain in the lower right abdomen. Pain was knife-like and radiated up the right side. Patient began to hemorrhage from the vagina. The flow was profuse and had a very foul odor. Patient became pale and fainted and was put to bed and given large doses of morphine to keep her quiet. Patient soon became free of pain, but the flow continued. It was scant in amount and exceedingly foul. Patient at this time was in Chicago. One week later, the patient had a similar attack with the exception that the hemorrhage was not profuse. The case was diagnosed as abscessed tubes. She had another attack a few days later. Patient was brought to Vicksburg from Chicago Saturday night, June 6, and was operated on Sunday, June 7.

Examination: Examination confined to the abdomen. The upper abdomen was entirely negative. The lower abdomen showed a mass in the right iliac fossa extending to McBurney's point. The abdomen was very rigid and a mass could be

*Brushfield and Wyatt: British Journal of Children's Diseases, March, 1927.

palpated in the right side. Vaginal examination revealed a cervix that was flowing slightly, the flow being of bloody mucus discharge and not profuse. The cervix was somewhat enlarged and rather soft. There was no laceration of the cervix from former pregnancy. The uterus appeared rather fixed and there was slight bulging of the cul-de-sac. The left side of the abdomen was essentially negative.

Diagnosis: Ruptured right tubal pregnancy.

Operation: Removal of the right tube and hematocele with at least one pint of clotted blood.

Progress Notes: Patient taken to surgery eight o'clock June 7, 1931. Returned from surgery at 8:40 A. M. Temperature 98°; respiration 32. A fairly comfortable day. Some nausea. June 8, 1931 temperature 99°; respiration 20. Patient had some slight nausea and some gas pains. This was relieved by enema. June 9, 1931. Some improvement, pulse, respiration and temperature normal. Some nourishment being taken. June 10, 1931, abdomen flat. Temperature normal. No complaints and patient making a nice recovery.

Discussion: By ectopic pregnancy or gestation we mean those conditions in which the growth of the impregnated ovum takes place elsewhere than in the uterine cavity. There are several locations where it may take place, namely, in the tube, in the ovary or in the peritoneum. By far the greater number of cases of ectopic pregnancy take place in the tube and usually in the outer half. When the ovum is expelled from the corpus luteum of the ovary it is guided by the fimbriae of the tube into the canal and by the ciliary processes it is waved along into the uterus.

This passage when unheeded requires several days and it is during this process of travel that impregnation usually takes place and under normal conditions the fertilized egg continues its course until it reaches the uterine cavity where it becomes implanted or embedded in the endometrium and proceeds to develop into full pregnancy at that point. It is assumed and believed by most gynecologists that there is some impediment to the passage of the ovum that causes it to become implanted or embedded in the tube or ovary or peritoneum as the case may be. For instance, the frequency with which pregnancy is found in tubes that have been damaged by some inflammatory process which is the result of puerperal infection or gonorrhea, or such conditions as appendicitis with adhesions to the end of the tube, leads us to believe that these are factors in ectopic gestation. However, there are many instances where this anatomic or pathologic con-

dition is not found and it is a bit of speculation on the part of anyone to say just what causes the impregnation of the tube or ovary. Sipple bases this theory of causation from observations that the ovum may enter the tube on the side opposite to the ovary from which it has been discharge. Freund thinks that the condition may result from the unusual length and convolutions of the tube. However, it may be, it is a known fact that an ovum cannot live for any great length of time in the tube. The death of the embryo is due undoubtedly to the poor soil in which the ovum has been fertilized and inserted. Therefore, it is a rare thing for the fetus to live more than two or three months. The average time in my experience is about two and one-half months. The direct cause of the death of the fetus is the rupture of the surrounding capsule. If the bleeding is free and unconfined, of course, there is great danger of death to the mother, but fortunately in the majority of cases this is impeded and we have a hematocele forming which protects the life of the mother.

It is hard to determine when we have a tubal pregnancy before there is a rupture. Frequently, a patient will think that she is pregnant and will have the usual symptoms of pregnancy for the first month or so. There is frequently a little drainage or slight menstruation, as she terms it, which is irregular and may continue for about a week, then disappear and return. The symptoms of rupture are very definite. One of the first symptoms that the patient notices is a sharp, lancinating pain in the side. This may cause so much shock that the patient will frequently fall to the floor. Pallor, small rapid pulse and air hunger follow. There is no fever, but there is marked rigidity of the abdomen and the patient will become extremely nervous. Very soon after, there is almost always some uterine bleeding. Rarely ever is this profuse. On palpation, there is rigidity and tenderness and frequently a mass is felt which is either on the right or left side, more frequently on the right.

Vaginal examination will reveal a mass on either side or probably in the cul-de-sac and by frequent examination we find the mass getting larger. However, I do not think that with the classical symptoms of sharp, lancinating pains in the side with shock, rapid pulse, air hunger and with a history of irregularity of menstruation that we should wait, but the patient should be taken to surgery and the trouble corrected as soon as possible. It matters not when the diagnosis is made, whether before rupture, at the time of rupture or after rupture, the course to pursue is surgery with removal of the tube and hemorrhage controlled in that way.

LOUISIANA STATE MEDICAL SOCIETY NEWS

H. Theodore Simon, M. D., Associate Editor.

Resolution adopted at a meeting of the Orleans Parish Medical Society, July 13, 1931.

In the death of Dr. Robert Clyde Lynch the Orleans Parish Medical Society has lost one of its most distinguished members. The sudden crushing out of this valuable life in an automobile accident represents an overwhelming blow and irreparable loss to our profession and to the community. His great skill, remarkable dexterity, and sound surgical judgment made him a leader in devising new procedures in his field of endeavor. His clearness of thinking and precision in demonstration were those of a great teacher. His firmness combined with tact led others to look to him as an administrator, organizer, and leader. His quiet manner and his fine qualities of character bound many to him by the ties of friendship. Above all, he was a great doctor, with sympathy and gentleness for suffering, with utter devotion to duty.

It is fitting, therefore, that this Society should record this in its minutes as an indication of its sorrow and bereavement, and that a copy should be sent to Dr. Lynch's family as a mark of the high regard in which he was held by colleagues and friends.

Resolution adopted at a meeting of the Orleans Parish Medical Society, July 13, 1931.

Whereas the Orleans Parish Medical Society has sustained a great loss in the death of Dr. B. A. Ledbetter;

Be it resolved that a page of the minutes be devoted to his memory. Dr. Ledbetter was for many years a prominent figure in the medical profession of the city and the state. He had served this society as its President, and was later president of the Louisiana State Medical Society. Through a long period of years he was on the staff of the Charity Hospital, and he had twice served as a member of the Louisiana State Board of Health. In these capacities he was active and forceful, and bent every effort to forward the interests of the profession and to promote the public health and welfare. His cheery disposition brought him the attachment and confidence of a large circle of friends.

Be it further resolved that this society tender to Dr. Ledbetter's family this expression of its appreciation of Dr. Ledbetter's active service, and of its sorrow at his death.

UNITED STATES PUBLIC HEALTH SERVICE.

Asst. Surgeon Charles W. Folsom. Relieved from duty at New Orleans Quarantine Station, and assigned to duty at Marine Hospital, New Orleans, La. June 30, 1931.

Asst. Surgeon J. G. Pasternak. Relieved from duty at New Orleans, La., on or about July 6, and assigned to duty at National Institute of Health, Washington. June 30, 1931.

Assistant Pharmacist F. L. Gibson. Relieved from duty at Carville, La., on or about July 10, and assigned to duty at Marine Hospital, Boston, Mass. June 16, 1931.

Chief Pharmacist D. J. Gleason. Relieved from duty at Marine Hospital, Boston, Mass., on July 10, and assigned to duty at Marine Hospital, Carville, La. June 16, 1931.

A. A. Surgeon C. P. Munday. Relieved from duty at Carville, La., on June 30 and assigned to duty at Relief Station, Port Arthur, Texas. June 16, 1931.

A. A. Surgeon Harry H. East. Relieved from duty at Port Arthur, Texas, on June 30, 1931, and assigned to duty at Marine Hospital, Carville, La. June 16, 1931.

Asst. Surgeon Fred P. Burow. Relieved from duty at Marine Hospital, New Orleans, La., on July 6, and assigned to duty at Quarantine Station, New Orleans, La. July 1, 1931.

Asst. Surgeon D. W. Patrick. Relieved from duty at Marine Hospital, New Orleans, La., on July 6, and assigned to duty at Quarantine Station, New Orleans, La. July 1, 1931.

Asst. Surgeon Noka B. Hon. Directed to proceed from New Orleans, La., to Hot Springs, Ark., for special temporary duty at Public Health Service Clinic at that place. July 2, 1931.

Asst. Surgeon George J. Van Dyke. Relieved from duty at Marine Hospital, New Orleans, La., on July 6, and assigned to duty at Marine Hospital, Cleveland, Ohio. July 2, 1931.

Dr. Leon J. Menville, Editor of Radiology, was elected Vice Chairman of the Section of Radiology at the recent meeting of the American Medical Association. Dr. Menville was also recently appointed to serve on a sub committee on Electrical Definitions, American Standard Association, sponsored by the American Institute of Electrical Engineers.

Dr. John H. Musser has been appointed to the Medical Council of the U. S. Veterans' Bureau.

ANNOUNCEMENT.

TENTH ANNUAL SESSION

American Congress of Physical Therapy

October 5, 6, 7, 8, 1931

Hotel Fontenelle Omaha, Nebraska.

The tenth anniversary session of the American Congress of Physical Therapy will be held October 5, 6, 7, 8, 1931 at the Hotel Fontenelle, Omaha, Nebraska. The Congress has always endeavored to present a program of high quality, and while each year has seen a steady improvement, this year's program is of such a standard that it will be difficult to surpass in the future. Appreciating the desirability of clinics and clinical demonstrations, the program committee has set aside the mornings for these purposes. It will be the first time that the society will have available ample clinical material for medical and surgical services. The cooperation of the University of Nebraska, College of Medicine, and the Creighton University School of Medicine has made this possible.

For preliminary program and other information write to the American Congress of Physical Therapy, 30 North Michigan Avenue, Chicago, Illinois.

HEALTH OF NEW ORLEANS.

The Division of Vital Statistics of the United States Department of Commerce reported for the week ending June 30, 1931, that there was a total of 126 deaths equally divided between the white and colored, and in the corresponding week of 1930, 150 deaths. The death rate for the week was 14.1. The infant mortality for this week was 33 white and 140 colored. For the week ending June 27, 1931, the total deaths were 126, of which 77 were white and 49 colored. The infant mortality had decreased to 58 white and 65 colored deaths under one year per 1,000 live births. The total number of deaths in the corresponding week in 1930 was 190. The index for the week ending July 4, 1931 shows a total mortality of 175, 105 white and 70 colored as contrasted with 129 total deaths in the corresponding week of 1930. Infant mortality had increased to white 61 and colored 116. For the week ending July 11, 1931 the total deaths had decreased to 159, 90 white and 69 colored. The infant mortality rate was white 99 and colored 147.

INFECTIOUS DISEASES IN LOUISIANA.

From the office of the United States Public Health Service, in collaboration with Dr. J. A. O'Hara, the morbidity weekly report for the 25 weeks ending June 20, 1931 shows the greatest

number of cases reported under the heading of pulmonary tuberculosis, 54, and syphilis 54. Among the other prominent infectious diseases is diphtheria with 25 cases, twenty-three cases of gonorrhea, 38 cases of pellagra, and 17 cases of typhoid fever. These cases of typhoid fever were reported from 11 parishes. There was a decrease in the number of typhoid fever cases reported in comparison with the corresponding week of 1930 when 27 cases were reported. There were 9 reported cases of smallpox, four in the parish of Orleans. There was one reported case of undulant fever in Lafayette parish.

For the week ending June 27, 1931, pellagra led the list with 67 cases. Syphilis accounted for 55 cases as contrasted with 120 cases in the corresponding week of 1930. Typhoid fever had increased to 34, being reported from 16 parishes with the greatest number, 8, in Evangeline parish. There were 2 reported cases of poliomyelitis and a reported case of undulant fever, this time in Iberville Parish. Smallpox had decreased to 2 cases, one in Orleans Parish and one in East Baton Rouge Parish.

For the week ending July 4, 1931 there were 89 cases of pneumonia reported as contrasted with 21 cases in the corresponding week of 1930. Typhoid fever cases had decreased to 25 cases in 15 parishes. There was only one case of epidemic cerebrospinal meningitis in Orleans Parish and one case of poliomyelitis in Ouachita parish. There were 56 cases of pellegra reported. For the week ending July 11, 1931 there were 91 cases of pellegra reported, said to be the result of a survey covering several parishes for several months. Pneumonia showed the next largest number with 72 reported cases. There were 47 typhoid fever cases reported. Two cases of undulant fever from Washington parish, and one case of tularemia from the same parish were reported. Only 9 cases of smallpox were reported in this week and only 18 cases of syphilis as contrasted with 55 for the previous week.

CORRESPONDENCE.

MEDICAL ORGANIZATION.

In the last issue of the Journal, the President of our State Medical Society expressed himself as desiring a closer contact with the officers of the component associations, saying that he would like very much to get their views, as well as that of every legally qualified physician of the State regarding organization, medical economics and in fact anything relating to the welfare of our profession. Hence this from me, as President of the Sixth District Medical Society. When Dr. Barrow was made our President, I felt that a man had

been chosen, who had sufficient strength of character and that he would bring honor to the medical profession, as well as advancement to organized medicine. His article in the last issue proved I was correct; it shows that he is not afraid of opinion, irrespective of traditions, when he feels he is right. It is a pity this article could not be broadcasted through all medical Journals and especially through the Journal of the A. M. A. My views of economics, organized medicine and traditions are in hearty accord with this. The economic side of the life of today cannot be compared to that of many years ago, advancement in everything is such that we must meet the situation boldly and frankly. The financial side of the life of the physician must be improved in some way and manner to meet the needs as they are today and to accomplish this without being censured the physicians in their organizations must do away with certain traditions hung on to us by medical ethics. Our ethics are too antiquated and unless they are revised, so as to bring them up to the high standards of the medical profession and to meet the necessities of the physician to enable him to live in fair comfort, something is bound to happen. Organized medicine in its true meaning is the only hope and salvation for us and let us live up to its every purpose as brave and honest men. Do not let any of us use it for purely personal and selfish purposes. Let advancement and high standards be our watch words and above all let us stand by each other in organized medicine as a solid phalanx. We are in an age of specialism in the medical profession; let us live up to the meaning of that word to its fullest and let us "eunuchize" all traitors and hybrid specialists. We should know that it is our duty to refer all patients, not belonging to our specialty, when coming to us, to a brother specialist in a different branch where the patient belongs. But I ask "is this done?" I answer a thousand times, "No!" And such acts are wrong to the very fundamentals of organized medicine. Let us clean our house along these lines and keep it clean if possible. This has no reference to and bears no reflection on the general practitioners; they are more loyal to their brother specialists by much, than are the specialists towards each other and vice versa. I consider that the most charitable and honorable as a whole of all medical men are the general practitioners.

Tradition is a wonderful word yet many traditions in all professions and occupations, except those of the medical profession have been put aside

by the advancement of science, inventions, and discoveries. Why should this not also be done judiciously in our medical ethics as suggested by our able President.

Traditions, customs and habits of civilization have almost the same meaning in many instances. Up to twenty-five years ago it was traditional for old Dobbins and the two-wheel sulky to be handed down, when the family doctor died, to his successor who came to replace him. This tradition or custom has rightfully passed on, yet many traditions respected by the medical profession are almost as ludicrous. In our ethics we yet have many traditions that are beautiful and will always be honored but in many ways our code can be vastly improved to meet the modern times. We should get together and stand by our President along these lines so that the bold and honest stand he has taken will be carried on by others. I am afraid that there are few of us who would criticise adversely an editorial in the A. M. A. Journal yet our President, feeling that he was right, did just this thing and too much commendation cannot be given him for the stand he has taken—it is due him.

It is a great pity that the medical fraternity in many of our small and thinly populated parishes are too small in numbers to organize a society and Dr. Barrow suggests, the District Society should seem the most suitable gateway for them to enter organized medicine. But before this is done these district societies must be put on a business standard. Again that word economics comes in like Banquo's Ghost, it won't down. I have just gotten the reins as President of the Sixth District Medical Society and our Secretary informs me that the member of this Society pay only when they attend the meetings and even this is not done in some instances. Before my term of office is over I do hope to have this entirely changed so that it will be as business-like as is our state society, which we know could not be improved upon under the management of Dr. Talbot. Our physicians must be improved as business men in some way and learn the meaning of the word budget in finances.

Respectfully,

F. F. Young, M., D.

President Sixth District Medical Society, Covington, Louisiana.

MISSISSIPPI STATE MEDICAL ASSOCIATION NEWS

L. S. Lippincott, Editor

Jacob S. Ullman, Associate Editor

D. W. Jones, Associate Editor

THAT WE MAY KNOW EACH OTHER BETTER.

Dr. James Milton Acker, Jr., Aberdeen, the President-Elect of the Mississippi State Medical Association, was born in 1887 and has been practicing medicine 21 years. Graduating from high school in Aberdeen, he had three years of literary study and two years of medicine at the University of Mississippi, and was graduated in medicine from the Tulane University of Louisiana, School of Medicine in 1910. He was licensed to practice medicine by the Mississippi State Board of Health the same year and has spent his life in Aberdeen with the exception of two years in the army and time spent in post-graduate work. He entered the army as a first lieutenant and was discharged as a major after serving most of the time as regimental surgeon of the 309th Field Artillery, 78th Division. He spent four months in 1912 at the New York Polyclinic and had post-graduate study at Chicago and the Mayo Clinic in 1928. Dr. Acker has been Secretary of the Northeast Mississippi Thirteen County Medical Society for five years, is a member of the Mississippi State Medical Association and a fellow of the American Medical Association.



JAMES MILTON ACKER, JR., M. D.,
Aberdeen, Miss.

President-Elect, Mississippi State Medical
Association.

for Publication," and occupies rather more than half a page telling what papers should not be published.

Asked for advice how to write, a successful author once said: "Write about new things in an old way, old things in a new way, or new things in a new way. Never write about old things in an old way." The last sentence covers what Dr. Ullman has to say in his half page, and expresses it with much less waste of ink and space.

The *Journal* has recently been giving us, under the heading Hospital Staff Transactions, some extremely readable stuff: case reports. As Dr. Ullman suggests, there are such things as text books that are available to us all; but since no two patients are ever exactly alike, we have in the clinical case the "new thing," or at least the unrecorded things, that will enable us to write in one of the three permitted ways. Formerly such subjects appeared much more frequently on programs and in journals than they do today and their absence is a distinct loss. Why not try to revive them more generally?

E. F. Howard.

PAPERS FOR PUBLICATION.

Dear Mr. Editor:

Had I not had the honor of meeting your distinguished co-worker Dr. J. S. Ullman, I would think he must be of Hibernian ancestry. In the *July Journal* he writes under the heading "Papers

HISTORY OF THE MISSISSIPPI STATE MEDICAL ASSOCIATION.

At the last meeting of the Mississippi State Medical Association Dr. E. F. Howard, Vicksburg, was elected Historian. He is now hard at work in an effort to bring up to date the history of the Association published under his direction in 1910. In the interest of accuracy, items of history will be

published in these columns. Dr. Howard requests that every member of the Association go over these items carefully and suggest to him any additions and corrections that should be made. Cooperation on the part of the members of the Association will insure a dependable and interesting history to be published later in book form.

Add 1908:

Dr. W. H. Aikman, on behalf of the Adams County Medical Society, presented the Association with a gavel "composed of five pieces of wood held together by bands of silver; the bands at the ends being expanded to extend over the different pieces and on these expanded surfaces at one end is engraved the names of the places where the wood was grown or whence it came. At the other end, on the corresponding surfaces, are recorded events, names and dates that make these five places notable in local history. Beginning at the handle we have a piece of red cedar from "Windy-Hill Manor," where that adventurous character of American history, Aaron Burr, was concealed in 1807. Next a piece of white cedar from a large tree that grew on "The Briars," where Jefferson Davis was married February 26, 1845. Then a section of poplar from "Longwood," where Sergeant L. Prentiss was married on March 2, 1842, and where he died July 1, 1850. Next a piece of walnut from "Concord," where stood the residence of the last Spanish governor, Gayoso, this residence being built in 1789. The piece of hickory and the hickory handle grew on "Monmouth," the home of General John A. Quitman, a hero of the Mexican war and military governor of the City of Mexico, being made governor by General Scott in recognition of his valor in being the first to have his troops within that ancient citadel." (Transactions, 1908).

Add 1909:

This year marks the beginning of the defense bureau. Such work had been begun with considerable success by several State Associations and it was the opinion of Dr. J. W. Gray, the 1908-9 president, that such a feature would be of benefit in Mississippi. His advocacy of it was the first suggestion of the plan which, finally adopted in 1911, has become so important a part of our machinery.

As a matter of no small satisfaction was the opportunity to show appreciation of one of the martyrs to medical science. The organized profession of the country was raising a fund to purchase a home for the widow of Dr. James Carroll, whose death was directly attributable to an attack of yellow fever contracted voluntarily in the effort to demonstrate the transmission of the disease by mosquitoes. The Association appropriated one hundred and fifty dollars for this purpose, to

which the individual members present at the meeting contributed an equal amount.

1911.—This defeat, however, but served to stimulate the Association to greater efforts. Dr. H. L. Sutherland of Rosedale initiated the attack with a paper on "The Duty of the State in the Conservation of Human Life and Energy," which was presented at the annual session and given to the public press. The various matters in which the Association had met defeat in the legislature were re-introduced and energetically pressed and the following year (1912) the legislative committee was able to report complete success with every measure introduced. The appropriation for the State Board of Health was increased from eight to twenty-five thousand dollars, a Bureau of Vital Statistics was created, and a law was passed providing that only graduates of recognized medical schools might apply for license to practice.

COUNTY EDITORS.

Dr. R. G. Grant of the North Mississippi Medical Society has made the following appointments to the Board of County Editors representing the counties of the North Mississippi Medical Society: Dr. A. H. Little, Oxford, Secretary, Chairman of the Board; Dr. Frank Ferrell, Ashland, Benton County; Dr. F. E. Linder, Taylor, Lafayette County; Dr. D. R. Moore, Byhalia, Marshall County; Dr. G. H. Wood, Batesville, Panola County; Dr. C. M. Murry, Ripley, Tippah County; Dr. H. P. Boswell, New Albany, Union County; Dr. G. A. Brown, Water Valley, Yalobusha County.

LOAN OF TRANSACTIONS.

June 24th.

Dear Mr. Editor:

The Historian wishes the loan of three volumes of TRANSACTIONS for the years 1895, 1898 and 1899. Perhaps if you will insert a request in the news column of the JOURNAL, some of the members will help him out. Only as a loan, to be returned promptly.

Very truly yours,

E. F. Howard.

PANOLA COUNTY.

Dr. Malcolm Arnold and wife of Sardis, are at home for a few weeks' visit to relatives and friends. Dr. Arnold has just graduated from Johns Hopkins and goes to his work in the Naval Hospital at Washington, D. C., the last of June.

G. H. Wood.

JOINT MEETING.

More than 200 North Mississippi physicians attended the regular quarterly meeting of the Northeast Mississippi Thirteen County Medical Society at Houlika, on June 22, with members of the North Mississippi Medical Society and high state officials as special guests. Dr. C. E. Boyd, president of the Northeast Mississippi Society, Dr. J. M. Acker, Jr., Secretary, and others in charge of the program, had declared the occasion "Houlika Day" in honor of one of the hospitable town's most distinguished citizens, Dr. William C. Walker, beloved member of the organization.

The ladies of Houlika served a bountiful picnic dinner to the doctors in a grove near the Baptist Church, the place of the quarterly meeting. Miss Moss Davis welcomed the doctors to Houlika.

The session as called to order by President Boyd. Rev. S. P. Andrews, pastor of the Houlika Baptist Church, pronounced the invocation. Dr. Z. A. Dorsey presented a paper on "Focal Infection." Discussion was opened by Drs. Pegram and Guinn. Dr. A. H. Little's paper, "Report of Allergic Cases," brought general discussion. Among the outstanding physicians on the program was Dr. Percy Toombs of Memphis. He discussed, "Dys-tocia, With Special Reference to the Occiput Posterior." "Differential Diagnosis of Heart Murmurs in Children," was the subject of Dr. R. E. Priest's paper. The discussion was opened by Dr. Reed and Dr. Adams.

At the conclusion of the regular program Dr. John C. Culley, President of the Mississippi State Medical Association was presented. He paid his respects to Dr. William C. Walker in whose honor the meeting was held and a tribute to the late Rad Reed. Discussing the work of the State Medical Association, Dr. Culley pointed out that this body at its last meeting in Jackson had endorsed by resolutions the movement to secure funds from the State to maintain charity wards in community hospitals and privately owned hospitals in order to care for charity patients in their territory. No definite plan has yet been adopted by the Association but this will be left with a committee appointed by the President and composed of a member from each congressional district. The following will compose the committee: Dr. R. B. Caldwell, Baldwin; Dr. V. B. Philpot, Houston; Dr. C. M. Speck, New Albany; Dr. E. R. Nobles, Rose-dale; Dr. J. W. D. Dicks, Natchez; Dr. J. P. Culpepper, Hattiesburg; Dr. M. L. Flint, Newton. The chairman of the committee is Dr. Felix J. Underwood, executive officer of the Mississippi State Board of Health.

Dr. Culley, in closing his address made an appeal to the members of the profession to forget faction-

alism and to work together for the restoration of the University of Mississippi to its former standing in the Southern Association of Colleges, thus assuring the continuation of the medical school at Ole Miss in its A-1 rating. He explained that the reason the medical school was not suspended but placed on probation was because of the board of trustees reinstating all the members of the medical faculty who had been previously removed, and the placing as dean of a man who was qualified to fill the office because of his understanding of medical education. Dr. P. L. Mull, dean of the Ole Miss Medical School, was then introduced. He spoke briefly of the work for the coming session.

The last speaker was Dr. Felix J. Underwood of the State Board of Health and President of the Southern Medical Association.

Among others attending the meeting were the president-elect of the State Medical Association, Dr. James M. Acker, Aberdeen; Ex-President G. S. Bryan, Amory; and Ex-President P. W. Rowland, Oxford. Dr. Underwood is also an ex-president of the State Association.

WEBSTER COUNTY.

Drs. W. H. Curry and J. H. Brown of Europa attended the Winona District Medical Society meeting at Lexington, July 6. Thirty physicians were present and a splendid program was rendered.

An invitation was extended to the Society to hold its next meeting in Europa.

W. H. Curry, County Editor.

YAZOO COUNTY.

I am sorry I mentioned corn in my June report for some unknown reason only two Yazoo doctors attended the last meeting of the Central Medical Society, Dr. Joe Roberts, Thornton, and your scribe. Dr. John Darrington attended the meeting of the State Board of Health recently of which he is a valuable member.

I hope to meet all Yazoo doctors in Vicksburg on the fourteenth.

C. M. Coker, County Editor.

PONTOTOC COUNTY.

Here goes from Pontotoc County Again:

Dr. C. D. Mitchell, Jackson, Superintendent of the State Hospital for the Insane, was a very pleasant visitor to our county on a recent visit to North Mississippi.

Dr. A. H. McGregor, Randolph, in the southwestern part of the county is very busy at this

time. Dr. J. D. Neel and the writer held a very interesting consultation with him recently.

Dr. Donaldson, Health Officer of this county, has been re-appointed for another two years. He is busy now with typhoid vaccinations and the like.

Pontotoc county was honored recently by a visit from Dr. R. N. Whitfield of the State Board of Health. During his stay in Pontotoc county, a Vital Statistics Association was organized. The following doctors of the county were present: O. F. Carr, R. P. Donaldson, Z. A. Dorsey, J. D. Neel, J. H. Windham, J. W. Gillespie, J. W. Turner, and E. B. Burns.

E. B. Burns, County Editor.

CLAIBORNE COUNTY.

We are glad to report that Dr. E. D. Barron, Pattison, is able to be out again, following an illness of several weeks.

Dr. D. M. Segrest, Lieutenant, United States Navy, who has been stationed at the Naval Hospital, Washington, D. C., is visiting his parents, Dr. and Mrs. R. A. Segrest, at Port Gibson.

At the recent meeting of the State Board of Health, Dr. W. N. Jenkins, Port Gibson, was reappointed health officer for Claiborne County.

W. N. Jenkins,
County Editor.

WINSTON COUNTY.

Dr. Bernard Hickman, son of Dr. W. W. Hickman, Louisville, recently took unto himself a bride, and has moved to our city as a partner of his father.

Dr. M. L. Montgomery recently camped for a week, not on a fishing outing, but while having his home remodeled. We seemed to have the sympathy of our friends but that did not eliminate the worries of trying to remain while the work was in progress.

The Winston County Medical Fraternity meets in regular session the second Tuesday night of each month.

Dr. W. W. Parks of our city has procured the services of Dr. R. L. Donald of Jackson as a partner. He and his good lady having moved into our city, there they will reside, and Dr. Donald will do general practice.

We are having distressingly good health through this section, but we appreciate health if it does cause more idleness among us.

M. L. Montgomery,
County Editor.

MADISON COUNTY.

Dr. John B. Howell of Canton was operated upon at the Jackson Infirmary in June. He is at home now where he is convalescing rapidly.

Dr. and Mrs. John Melvin of Camden have returned from Baltimore where Mrs. Melvin went for treatment. Mrs. Melvin is much improved in health.

Miss Stevens, nurse at the King's Daughters' Hospital of Canton, is enjoying a vacation at home.
A. P. Dufrey,
County Editor.

GRENADA COUNTY.

Affairs medical in Grenada county are in normal condition. Our doctors are well and at work as opportunity offers. No marriages, births or deaths in their families except my own. We sustained a sore bereavement in the death of our son-in-law, Mr. Frank B. Hays, at the Methodist Hospital in Memphis on June 11. He was indeed a fine son.

Our local society—Winona District—had a most delightful meeting at Lexington on July 6. A full program and free discussion was enjoyed by 30 or more members. The doctors, druggists, and citizens generally made us welcome and proved themselves to be royal hosts. A splendid, well-served luncheon added to the enjoyment of the "inner man." A "red letter" day for us. Drs. J. K. Avent, R. A. Clanton and T. J. Brown represented Grenada County.

T. J. Brown,
County Editor.

COMMITTEE ON COMMUNITY HOSPITAL LEGISLATION.

At a meeting of the Committee on Community Hospital Legislation of the Mississippi State Medical Association at Jackson, on July 7, the following action was taken:

"In keeping with a resolution, a copy of which is herewith enclosed, adopted by the Mississippi State Medical Association in annual meeting which assembled at Jackson in May, 1931, pertaining to Legislation regarding the distribution of charity funds to community hospitals in counties where no state hospitals exist, we, the Committee on Community Hospital Legislation, appointed by the President of the Mississippi State Medical Association, wish to submit to all candidates for governor, lieutenant-governor, and the legislature, the following:

"In view of the fact that the Mississippi State Medical Association has adopted by unanimous vote the enclosed resolution it is to you we are appealing for legislation to carry out this program.

May we ask that you give this important matter your careful consideration and, if it meets with your approval, carry this idea to your people. Also, we should appreciate information as to your attitude on this important legislation."

Felix J. Underwood, M. D., Jackson, Chairman.

V. B. Philpot, M. D., Houston, Secretary and Representative District Four.

R. B. Caldwell, M. D., Baldwin, District One.

C. M. Speck, M. D., New Albany, District Two.

E. R. Nobles, M. D., Rosedale, District Three.

M. L. Flynt, M. D., Newton, District Five.

J. P. Culpepper, M. D., Hattiesburg, District Six.

J. W. D. Dicks, M. D., Natchez, District Seven.

R. W. Smith, M. D., Canton, District Eight.

EAST MISSISSIPPI MEDICAL SOCIETY.

The regular meeting of the East Mississippi Medical Society was held in the Benwalt Hotel, Philadelphia, Thursday, June 18, at 3 P. M., with 27 members and 13 guests present. The following program was rendered:

1. The Present Understanding and Limitations of the Term Eczema—Dr. R. W. Hall, Jackson.

Discussed by Dr. E. C. Mitchell, Memphis.

2. The Patient—Mrs. Iva W. Lovell, Superintendent of Nurses, Meridian Sanitarium.

3. Symptoms of Colon Disfunction—Dr. H. G. Rudner, Memphis.

Discussed by Drs. E. C. Mitchell, H. C. Ricks and J. S. Hickman.

4. Motion Pictures Showing Activities of a County Health Department as Operated in Mississippi—Dr. H. C. Ricks, Jackson.

Immediately following the meeting, through the courtesy of the Neshoba County doctors, a banquet was served to the members and guests. Dr. A. L. Majure served as toastmaster. The speakers were Drs. E. C. Mitchell, R. W. Hall, H. G. Rudner and H. C. Ricks.

T. L. Bennett, Secretary.

WARREN COUNTY.

Dr. M. H. Bell is enjoying a much needed vacation. He will remain out of his office until August 1.

Dr. and Mrs. W. G. Weston, formerly of Louisville, Ky., have moved to Vicksburg. Dr. Weston is connected with the Vicksburg Clinic, his practice being limited to Internal Medicine.

Dr. and Mrs. George M. Street attended the recent meeting of the American Medical Association.

Dr. Guy P. Sanderson has entered private practice. He retains his position on the Staff of the Vicksburg Hospital and was elected President at its recent meeting.

Dr. J. A. K. Birchett, Jr., recently enjoyed spending a few days at the Mayo Clinic.

Dr. and Mrs. Guy C. Jarratt have returned from their vacation, which they spent in Oklahoma City.

Dr. W. E. Akin has accepted a position as resident physician at the Vicksburg Hospital.

Drs. Walter Johnston and Gurney Clark received their degrees at Vanderbilt University during June. Dr. Johnston has entered private practice with his father, Dr. S. W. Johnston. Dr. Clark has secured an internship at the Strong Memorial Hospital of Rochester, N. Y.; he plans to specialize in internal medicine.

Dr. Sol Kaufman spent a few days in Vicksburg during his vacation. He has returned to Charity Hospital of New Orleans, La., for a Senior Internship.

Dr. Nathan Lewis has returned to Vicksburg, after having received special training in surgery at the Missouri Pacific Hospital, St. Louis, Mo. He will spend the next two weeks at the Reserve Officers' Training Camp, after which he plans to enter private practice.

Dr. Edley H. Jones has been notified of his election as a Fellow of the American College of Surgeons. The degree will be conferred at the annual convocation in October.

Three Vicksburg boys, Alston Callahan, John Whitney and Benson Martin have completed their second year of medicine. Callahan is spending the summer at the Vicksburg Hospital and Martin at the Vicksburg Infirmary.

Edley H. Jones,
County Editor.

VICKSBURG HOSPITAL.

The regular monthly staff meeting of the Vicksburg Hospital was held on June 11 at 7 P. M. and was called to order by the President, Dr. W. H. Parsons, with the following present: Drs. I. C. Knox, G. P. Sanderson, H. W. Weimar, F. M. Smith, E. H. Jones, and W. E. Akin.

After the reading of the minutes of the two preceding meetings, and analysis of the work of the hospital for the past month, including roent-

gen-ray, laboratory, medical and surgical reports, made and the reports freely discussed. There was free discussion of the twenty-five questions for hospital standardization as outlined by the American College of Surgeons.

The scientific program included a case report and discussion of "Ectopic Gestation," lead by Dr. I. C. Knox.

Election of officers was held and the following elected to serve until the meeting in February, 1932: President, Dr. G. P. Sanderson; vice-president, Dr. W. H. Parsons; secretary, Dr. W. E. Akin.

Refreshments were served and the meeting adjourned.

PIKE COUNTY.

Born to Dr. and Mrs. H. C. Hatcher, a son, on June 17, 1931.

Dr. L. W. Brock was forced to stay in bed a few days from an infected hand. Glad to say he is at work again.

Dr. T. B. Abney has located at McComb.

Dr. T. Paul Haney of the Commonwealth Health Unit is with us and will soon be able to show us just how it should be done. We are with you, doc.

L. J. Rutledge,
County Editor.

VICKSBURG SANITARIUM.

The regular monthly meeting of the staff of the Vicksburg Sanitarium was held July 10.

After the reading of the minutes of the last meeting and the reception of reports from the records department and analysis of the work of the hospital, the following special case reports were made:

1. Microcephalus—Dr. G. C. Jarratt.
2. Fracture of the Shaft of the Radius with Poor Apposition and Delayed Union, Treated by Open Reduction and Intramedullary Bone Peg—Dr. A. Street.
3. Postoperative Phlebitis of the Lower Extremities—Dr. J. A. K. Birchett, Jr.
4. Some Interesting Chest Conditions—Dr. L. J. Clark.
5. Ovarian Cyst—Donald S. Hall.

Dr. G. M. Street reported on the recent meeting of the American Medical Association at Philadelphia.

A number of interesting roentgen-ray studies were presented and discussed.

Closed with a lunch.

NESHOBA COUNTY.

The Neshoba County Medical Fraternity met on its regular date in June. We had a very enthusiastic little meeting and enjoyed the mingling together of the dentists, pharmacists and medical men. We had the following papers and discussions:

Trench Mouth—Dr. E. P. Tolbert.

Discussed by Drs. Porter Jordan, R. H. Gully, W. R. Hand, and J. S. Hickman.

Tularemia—Dr. J. S. Hickman.

Discussed by Dr. W. R. Rand.

Dinner was served at Dobb's Hotel.

The East Mississippi Medical Society met at the Ben Walt Hotel, Philadelphia, on June 17. We had a very instructive meeting, after which the Neshoba County doctors gave a six o'clock dinner with about 25 present. The President of the society, Dr. A. L. Majure, acted as toastmaster. Dr. Majure is making us a wonderful president.

J. S. Hickman,
County Editor.

SHARKEY COUNTY.

Miss Ethel Goodman, daughter of Dr. H. S. Goodman, Cary, is attending summer school at the University of Virginia.

Drs. H. S. Goodman and W. C. Pool, Cary, attended the June medical meeting in Monroe.

Dr. H. B. Goodman, son of Dr. H. S. Goodman, Cary, has just completed his internship at the Charity Hospital, New Orleans, and is now on the staff of the Charity Hospital, Vicksburg.

Dr. and Mrs. A. K. Barrier, Rolling Fork, visited relatives in Louisiana recently.

The Sharkey County Health Unit held a pre-school clinic at the Cary high school, Cary, June 30, where quite a number of children were examined. Drs. L. C. Davis, Greenville, Edley H. Jones, Vicksburg, and H. S. Goodman and W. C. Pool, Cary, gave their services.

Dr. and Mrs. M. J. Few, Rolling Fork, spent July 4th, with relatives in Drew.

W. C. Pool,
County Editor.

ATTALA COUNTY.

Dr. Lamar Bailey and Dr. C. A. Pender, Kosciusko, attended the Winona District Medical Society which convened at Lexington on July 6. The meeting and luncheon were enjoyed by all present. After the meeting, the Community Hospital was inspected and found to be modern in every detail. Any community is to be congratulated on securing an institution of this kind.

The next meeting of the Winona District Medical Society will be held at either Europa or Kosciusko, about October 1.

C. A. Pender,
County Editor.

Acknowledgment is made of the receipt of a post card from Dr. A. G. Payne, Greenville, dated July 7, at Rochester, Minnesota. Dr. Payne writes: "It does one good to get out and see how other people fare, live and do things. Came up through Arkansas, Missouri, Iowa, and Minnesota. Crops all fine, but depression?"

PIKE COUNTY MEDICAL SOCIETY.

The Pike County Medical Society met at the Dew Drop Inn, Summit, July 2, with the following members present: Drs. W. C. Hart, B. J. Hewitt, T. W. Hewitt, H. C. Hatcher, G. W. Robertson, M. D. Ratcliff, L. J. Rutledge, C. W. Stewart, E. M. Givens, L. L. Greer, W. F. Cotton, and R. H. Brumfield.

Visitors present included Drs. T. Paul Haney, T. B. Abney, H. K. Butler, D. P. Butler, and I. D. Boyett.

Drs. Haney and Abney were elected to membership in the society.

The scientific program included:

Scraped Apple Treatment of Bloody Diarrheas in Infancy—Dr. L. J. Rutledge.

Prophylaxis in Pregnancy—Dr. E. M. Givens.

Robert H. Brumfield, Secretary.

PONTOTOC COUNTY.

The North East Mississippi Thirteen County Medical Society met at Houlka, June 16, with the North Mississippi Medical Society as guest. We had about 200 doctors present.

Drs. W. C. Walker and J. M. Hood saw that every one present had a good time and we were all sorry when the time came to leave.

The doctors who attended from Pontotoc County included: E. G. Abernethy, Algoma; E. B. Burns,

Ecru; R. P. Donaldson, Pontotoc; A. P. Dunavant, Pontotoc; Z. A. Dorsey, Troy, and W. H. Reid, Toccopola.

Dr. O. F. Carr has the sincere sympathy of his many friends in the loss of his mother, Mrs. O. C. Carr, who died at the ripe old age of 81 on June 16.

A Pontotoc County Vital Statistics Association was organized here June 30 on the occasion of the visit of Dr. R. N. Whitfield of the Mississippi State Board of Health.

Dr. O. F. Carr and wife, Pontotoc, are visiting their daughter, Mrs. William May, Jr., at Lombardy.

The meeting of the staff of the Houston Hospital, Houston, was held on July 2.

The subject for discussion, "Bronchography," was presented by Dr. J. R. Williams. All present participated in the discussion. These meetings are always well attended by doctors from several adjoining counties. They meet twice a month.

R. P. Donaldson,
County Editor.

CHOCTAW COUNTY.

We have seven physicians in Choctaw County. None are boys, still I would not call any of them old—not to their faces anyway. All have families except two; however, I have seen older men than they are assume this responsibility.

We are badly in need of charity wards in our North Mississippi Hospitals and are anxious for that time to come.

J. James Ackerman,
County Editor.

MONROE COUNTY.

June 16 was a memorable day; for on that day the Thirteen County Society celebrated "Houlka" day according to program announcement. But it was stated on the floor by one of the speakers that it should have been designated as "Walker" day in honor of Dr. W. C. Walker, on whose personal invitation the society visited Houlka.

Houlka is just a small village situated in Chickasaw County, built on a spur of the Pontotoc Ridge, but those who have never visited Houlka have yet to learn the full meaning of hospitality. It seems that Dr. Walker traveled to Holly Springs on the day the North Mississippi Medical Society held its spring meeting, expressly to invite that society to visit with us on June 16. This invitation was accepted—so twenty counties were in attendance. Besides, the news had been passed on that *all* doctors and their friends would be welcome. About 250 doctors were there.

The program was good—the day was fine—the feast that was spread for us by Houka folks surpassed any thing I have ever seen. They had prepared for one thousand. The food was deliciously cooked and served. Nothing that could be thought of was omitted.

But as bountiful and fine as the food was, even these qualities could not match the welcome and hospitality that you sensed as soon as you entered the limits of this wonderful little Southern village. The best and greatest feature of the occasion was the very evident fact that it was the spontaneous expression of love and esteem of a splendid people for a splendid man. While Dr. Walker is not a very old man, he is on the shady slope of life's hill. He has spent his life among these people, he has served them well with no thought of his own aggrandizement. These people appreciate him, they prize him, they love him, both for what he is and what he has done for them. Dr. Walker is a cultured Southern gentleman and had he devoted his life to letters he might have ranked with the best of present day literati. Had he chosen the platform he might have held the public spellbound with his eloquence; for he is, in the fullest sense, an orator. But who would exchange the place that he holds in the hearts of his people for the passing glory of such triumphs as might have come to him had he devoted his time and talents to these other lines of endeavor. How fine it would be if each of us, when the sunset days shall come, might know that we had deserved and served and won and kept the love of our people as Dr. Walker has the love of the people at Houka.

The poet, from whom Dr. Walker quoted on that day, in a vein of cynicism, asks the question, "What is friendship and what is love?" Let another of the old English poets answer, when he says, "Love rules the court, the camp, the grove, all men below and saints above; for love is heaven and heaven is love." There never was a day like "Houka" day—there may never be another. But I am sure, no one who was there will ever regret or forget that he was there.

G. S. Bryan,
County Editor.

STILL THEY OCCUR.

Report of the Bureau of Communicable Diseases of the Mississippi State Board of Health shows for the month of May, typhoid fever, 45; smallpox, 184; diphtheria, 33. All of these could have been prevented by the proper prophylactic immunizations. Let's free Mississippi from these three diseases this year.

HOMOCHITTO VALLEY MEDICAL SOCIETY.

The third regularly quarterly meeting of the Homochitto Valley Medical Society was held at Bude, on July 9, with 18 members and two guests present. After a most delightful luncheon, the meeting was called to order by Dr. Lucien S. Gaudet, President, and the following program presented:

1. Report of Dr. J. W. D. Dicks, Councillor, 8th District.
2. Report from Vice-President E. E. Benoist, Adams County.
3. Report from Vice-President W. R. Brumfield, Amite County.
4. Report from Vice-President C. E. Mullins, Franklin County.
5. Report from Vice-President R. B. Harper, Jefferson County.
6. Report from Vice-President J. W. Brandon, Wilkinson County.
7. Reports of Delegates who attended the Mississippi State Medical Association Meeting for 1931.
8. Reports of Committees.
9. Clinical cases:
 - (a) Hematuria Following Traumatic Injury Over the Left Kidney Region—Dr. C. A. Everette.
 - (b) Intestinal Obstruction Caused by a Bolus of Round Worms in the Ileum—Dr. C. A. Everette.
10. Paper. "Some Notes on Gallbladder Disease"—Dr. E. E. Benoist. Discussion opened by Dr. R. D. Sessions.
11. Adjournment.

W. K. Stowers, Secretary.

CENTRAL MEDICAL SOCIETY.

The joint meeting of the Central Medical Society with the Issaquena-Sharkey-Warren Counties Medical Society at Vicksburg on July 14, was the last meeting of the Central Medical Society before the summer vacation. There will be no meeting of the society in August.

W. L. Hughes, Secretary.

DR. J. H. RUSH.

Whereas, an all-wise Providence, the Great Physicians of all our humanity, having power to heal all sickness and infirmities alike of body and soul, but whose ways the finite mind cannot grasp,

in His wisdom has removed from the walks of men our beloved friend and former co-worker, Dr. J. Hack Rush, of Meridian, a successful practitioner of the dental profession, embracing the best years of his wonderful career; a man of unusual skill in dentistry, possessing a dexterity later used with telling effect in the broader field of surgery; a man of rare charm and magnetism of personality, whose face ever mirror and radiated the fine soul within, being an humble believer in the Fatherhood of God and the Brotherhood of man; a man who in the broader field of medicine and surgery, thought entering it much later in life than is the usual order, carved a name and a place for himself, impossible to appraise in terms of sordid wealth, leaving his kinsfolk, especially his two sons, already eminent physicians and surgeons, a heritage more valuable than fine gold or monument of stone and marble; a man who compressed into the forty years of his professional career a monumental amount of extraordinary service to humanity, and though almost a constant sufferer the latter years of his life, smiled to his last conscious moments. Therefore, in recognition of the above enumerated charming traits of character, and his outstanding contributions to the dental profession and later to medicine and surgery. Be it

Resolved, That the Mississippi Dental Association, in annual assembly in Gulfport, June 4, 1931, does hereby take cognizance of the true worth and attainments of our departed friend and co-worker, pledging ourselves ever to strive to emulate his virtues and fine traits of character as well as his tireless energy and devoted service to suffering humanity.

Resolved, That the Association do hereby extend to his wife, Mrs. Nellie Hunnicutt Rush, to his brother, Dr. G. A. Rush, an honored member with us, and former partner in dental practice of the lamented Dr. J. Hack Rush; to his sons, Drs. J. Lowry Rush, and Leslie V. Rush, and other relatives, our sincere sympathy and condolence in their hour of bereavement.

Resolved, That a copy of these resolutions be conveyed to the above named members of the bereaved family, and that a copy be filed with the Department of Archives and History of the Association.

Necrology Committee

Dr. A. B. Kelly, Yazoo City, Miss.
Dr. A. G. Tillman, Sr., Vicksburg, Miss.
Dr. L. B. Price, Corinth, Miss.
Dr. J. F. Brunson, Meridian, Miss.

Dr. Rush was a graduate dentist and practiced dentistry before he studied medicine.

OLD TRANSACTIONS.

The Historian of the Mississippi State Medical Association has a rather complete set of the transactions "since the beginning of time." This collection is probably the most complete now extant. However, the following volumes are missing: 1874, 1884, 1885, 1886, 1887, 1888, 1889, 1890, 1892, 1893, 1901.

It is rather important to the State Association that there should be some where at least one complete set of its transactions. Members of the Association are requested to look through their old books and if any of the above volumes are found, to consider very seriously presenting them to the collection of the Historian. Such volumes will be well cared for and reference may be made to them should any one desire. Your co-operation in this is urged.

COMMITTEES.

Dr. John C. Culley, President of the Mississippi State Medical Association, has announced the appointment of the following committees for the year:

Committee on Public Policy and Legislation—One year, F. J. Underwood, Jackson; two years, Henry Boswell, Sanatorium; three years, W. H. Anderson, Booneville.

Committee on Publication (Ex-Officio)—L. S. Lippincott, Vicksburg; J. S. Ullman, Natchez; D. W. Jones, Jackson.

Committee on Scientific Work—T. M. Dye, Clarksdale; Gilruth Darrington, Yazoo City; B. S. Guyton, Oxford.

Committee on Constitution and By-Laws—One year, S. W. Johnston, Vicksburg; two years, J. S. Ullman, Natchez; three years, W. H. Frizell, Brookhaven.

Committee on Community Hospitals—District 1, R. B. Caldwell, Baldwin; District 2, C. M. Speck, New Albany; District 3, E. R. Nobles, Rosedale; District 4, V. B. Philpot, Houston; District 5, M. L. Flynt, Newton; District 6, J. P. Culpepper, Hattiesburg; District 7, J. W. D. Dicks, Natchez; District 8, R. W. Smith, Canton.

Chairmen of Sections.

The President has appointed the following Chairmen of Sections: Surgery, W. H. Anderson, Booneville; Medicine, G. W. F. Rembert, Jackson; Eye, Ear, Nose and Throat, Edley H. Jones, Vicksburg; Hygiene and Public Health, F. M. Smith, Vicksburg; Radiology, George E. Adkins, Jackson.

JOINT MEETING.

Fifty-eight members and guests attended the joint meeting of the Central Medical Society and the Issaquena-Sharkey-Warren Counties Medical

Society held at the Vicksburg Country Club on June 14. After a short address of welcome by President J. B. Benton of the Issaquena-Sharkey-Warren Counties Society, the following scientific program by the members of the Central Medical Society was presented:

1. Acute Osteomyelitis—Dr. J. W. Barksdale, Jackson.

Discussed by Drs. O. H. Swayze, Yazoo City; S. H. McLean, Jackson; Julius Crisler, Jackson; John Darrington, Yazoo City; W. H. Parsons, Vicksburg, and G. M. Street, Vicksburg. Dr. Barksdale closed.

2. The Use of Spinal Anesthesia in Obstetrics—Dr. L. W. Long, Jackson.

Discussed by Drs. Joe Roberts, Thornton; G. M. Street, Vicksburg; J. W. Barksdale, Jackson; John Darrington, Yazoo City; Gilruth Darrington, Yazoo City; I. C. Knox, Vicksburg; S. H. McLean, Jackson; P. S. Herring, Vicksburg, and E. F. Howard, Vicksburg. Dr. Long closed.

3. The Incidence of Malignancy—Dr. A. G. Wilde, Jackson.

Discussed by Drs. Julius Crisler, Jackson; A. Street, Vicksburg; G. M. Street, Vicksburg. Dr. Wilde closed.

Dr. E. F. Howard, Vicksburg, offered the following resolution:

Be it resolved, That the President appoint a committee of three—one from each of the counties composing this society—to investigate the activities of all agencies practicing medicine in the three counties, Issaquena, Sharkey, and Warren, that are financed either in whole or in part from the public funds; in an effort to determine if, and to what extent, these activities are infringing on the rights and just privileges of private physicians; and

Be it further resolved, That this committee be instructed to report its findings, together with such recommendations as it may choose to make, too the next meeting of this society.

E. F. Howard,
S. W. Johnston,
Leon S. Lippincott,
W. H. Parsons,
Edley H. Jones,
B. B. Martin.

After explanation of this resolution, on motion of Dr. Howard, seconded by Dr. Jones, it was unanimously adopted. The President appointed as the committee Drs. W. H. Parsons, Vicksburg, for Warren County; W. C. Pool, Cary, for Sharkey

County, and J. B. Benton, Valley Park, for Issaquena County.

At the conclusion of the meeting the ladies of the Women's Auxiliary of the Issaquena-Sharkey-Warren Counties Medical Society served a plate lunch on the lawn of the Country Club.

DEATHS OF MISSISSIPPI DOCTORS.

Dr. S. A. Scruggs, Lauderdale County; sudden death; June 4, 1931, at Lauderdale. Born 1854.

Dr. C. L. Bufkin, Columbia; Pellagra; at Columbia. Born at Columbia.

Dr. Louis D. Dickerson, McComb; Appendicitis followed by gas bacillus infection; June 4, 1931, at McComb. Born in Simpson County, September 11, 1869.

Dr. James Cox Vandiver, Baldwin; Operation for gallstones; June 9, 1931, Booneville. Born at Baldwin, May 23, 1883.

Dr. V. W. Maxwell, Gulfport; General peritonitis following appendectomy; June 26, 1931, at Gulfport. Born Mississippi, 1891.

Dr. William Little Davis, Walls; Myocarditis and muscular rheumatism; May 4, 1931, at Walls; age 74.

Dr. D. R. Lamb, Artesia; Heart attack; May 25, 1931, at Artesia. Born at Europa, May 10, 1880.

Dr. R. L. Anderson, Inverness, May 31, 1931, at Inverness. Born at West, Holmes County, August 29, 1875.

DOCTOR LUTHER LEE GREER.

Dr. Luther Lee Greer, age 50, McComb, died July 11, after a brief illness following an operation for appendicitis.

Dr. Greer had resided in McComb for a number of years and enjoyed a large practice. He is survived by his wife, one son, Luther Lee, Jr., and one daughter, Miss Mildred Greer of McComb, a brother John Greer, and a sister Mrs. C. T. Brewer of McComb.

Dr. Hardie Hays, Jackson, colonel, medical reserve corps, United States army, recently spent two weeks at Fort Beauregard, Louisiana, as camp physician of the C. M. T. C. Dr. Hays was chief of the medical staff of the civilian training camp.

MISSISSIPPI STATE BOARD OF HEALTH.

On July 1, the Pike County Health Department was organized with Dr. T. Paul Haney, Jr., as Director. Dr. Haney will have associated with him Miss Inez Driskell, Supervising Nurse; Miss Marjorie Patterson, Public Health Nurse; Miss Elizabeth Kimmons, Dental Hygienist; Miss Mar-

Irwin, Secretary; and L. W. Murphy, Engineer-Inspector. Pike is one of the counties chosen by the Commonwealth Fund for financial co-operation giving to the citizens "super" health service.

Dr. T. Paul Haney, Jr. and Dr. B. D. Blackader have just returned from Johns Hopkins University where they attended the School of Hygiene and Public Health and were awarded certificates in public health.

Dr. J. A. Milne has just completed a course in Hygiene and Public Health at Harvard University where he was awarded the degree of Master of Public Health. Dr. Milne is now Director of the Field Unit of the Mississippi State Board of Health. Recent visitors to the Mississippi State Board of Health: Miss Miriam Birdseye, U. S. Extension Department, Washington, D. C.; Dr. James R. McCard, Emory University, Atlanta, Georgia; Mrs. Walter McNab Miller, American Child Health Association, New York City; Arthur J. Strawson, Field Secretary, National Tuberculosis Association, New York City; Dr. M. Flint Haralson, Chief Quarantine Officer, The Panama Canal; Dr. and Mrs. Earl Bates, U. S. Bureau of Indian Affairs, Washington, D. C.; Dr. J. W. Cox, American Society for Control of Cancer, New York, N. Y.; Dr. R. A. Vanderlehr, Passed Assistant Surgeon, United States Health Service, Washington, D. C.; Dr. O. C. Wenger, Surgeon, United States Public Health Service, Washington, D. C.; Dr. L. L. Lumsden, Medical Officer, United States Public Health Service, Washington, D. C.; Dr. C. A. Scamman, U. S. Commonwealth Fund, New York City; Dr. Lester J. Evans, The Commonwealth Fund, New York City; Miss Theresa Kraker, The Commonwealth Fund, New York City; Dr. H. N. Cruchley, Rockefeller Foundation Fellow, Jamaica; Miss Margaret E. Dizney, Nursing Field Representative, American Red Cross, Washington, D. C.; Ralph Earl, Earl Engineering Company, New Orleans, La.; Leon Lasser, Civil Engineer, New Orleans, La.; Dr. Julius Moldovan, Institute of Hygiene, Roumania; Dr. Leon Prodan, Institute of Hygiene, Roumania; Dr. A. J. Warren, New York City; Mrs. R. D. Rood, Staff Associate, White House Conference on Child Health and Protection; Dr. Georgandjis, Athens, Greece; Dr. H. C. Barnard, Director, White House Conference on Child Health and Protection, Washington, D. C.; Dr. T. Georgiadis, Athens, Greece; Dr. Robert A. Strong, Tulane University, New Orleans, Louisiana; T. T. Kolokotronis, Athens, Greece.

HONOR ROLL.

J. C. Culley, T. M. Dye, D. W. Jones, E. F. Howard, F. J. Underwood, A. G. Payne, C. M. Speck, J. S. Hickman, W. C. Pool, C. A. Pender, R. P. Donaldson, J. J. Ackerman, E. B. Bruns, G. S. Bryan, C. M. Coker, W. H. Curry, W. N. Jenkins,

M. L. Montgomery, A. P. Durfey, T. J. Brown, E. H. Jones, L. J. Rutledge, G. H. Wood, A. H. Little, R. H. Brumfield, T. L. Bennett, J. M. Acker, W. K. Stowers, W. L. Hughes.

The above were contributors to the August number of the Mississippi News Section. THANK YOU!

COUNTY EDITORS APPARENTLY ON VACATION.

L. Wallin, Adams; J. R. Hill, Alcorn; P. Jackson, Amite; F. Ferrell, Benton; J. A. Hardin, Calhoun; J. P. T. Stephens, Carroll; W. C. Walker, Chickasaw; S. R. Deanes, Clay; W. L. Little, Copiah; A. V. Richmond, DeSoto; C. E. Mullins, Franklin; C. M. Shipp, Hancock; C. McCall, Harrison; A. G. Wilde, Hinds; R. C. Elmore, Holmes; W. H. Scudder, Issaquena; N. W. Nunnery, Itawamba; B. S. McIlwain, Jackson; R. B. Harper, Jefferson; F. E. Linder, Lafayette; C. T. Burt, Lauderdale; B. S. Waller, Lawrence; A. J. Stacy, Lee; W. H. Frizzell, Lincoln; J. W. Lipscomb, Lowndes; D. R. Moore, Marshall; S. S. Caruthers, Montgomery; S. A. Majure, Newton; J. D. Green, Nuxubee; H. L. Scales, Oktibbeha; R. B. Cunningham, Prentiss; H. N. Holyfield, Rankin; W. C. Anderson, Scott; S. E. Dunlap, Stone; W. D. Smith, Tate; C. M. Murry, Tippah; H. P. Boswell, Union; B. L. Crawford, Walthall; S. E. Field, Wilkinson; G. A. Brown, Yalobusha.

It is a fine thing to be able to take a vacation this year. Congratulations!

While you are enjoying yourselves, think of your editors in their offices toiling to give you a real Journal.

SOCIETIES ALSO APPARENTLY ON VACATION.

At least no news! Claiborne, Clarke-Wayne, Clarksdale and Six Counties, Delta, DeSoto, Harrison-Stone-Hancock, Jackson, Kemper, Leake, South Mississippi, Tate County, Tri-County, Winona District.

HOW DO YOU LIKE OUR CALENDAR?

Dates of coming meetings reported—NONE!

NO COUNTY EDITORS.

The following counties have no editors thus far. WHY? Bolivar, Clark, Coahoma, Covington, Forrest, George, Greene, Humphrey, Jasper, Jefferson Davis, Jones, Kemper, Lamar, Leake, Leflore, Marion, Pearl River, Perry, Quitman, Simpson, Smith, Sunflower, Tallahatchie, Tunica, Washington, Wayne.

Your President or your Secretary, or both, have been asked to make appointments to the Board of County Editors. Will you not ask their co-operation?

BOOK REVIEWS

Manual of Surgery: By Frances T. Stewart, M. D., and Walter Estell Lee, M. D. 6th ed. rev. Philadelphia, P. Blakiston's Son & Company. 1931. pp. 1307.

This new sixth edition admirably meets the requirements of the undergraduate for whom the original edition was prepared by Frances T. Stewart. It also meets the demand of the busy practitioner for whom it makes available a great fund of information concisely put.

Dr. Walter Estell Lee has added many new chapters which have increased the value of the book.

The subject of anesthesia and anesthetics has been brought up to date to include ethylene, sodium amylal and avertin.

The authors have done well to include the chapter on bandaging which they have borrowed from Wharton's Minor Surgery.

Recent developments in surgery of the heart and pericardium are discussed in a chapter which was prepared by Dr. Elliott Cutler.

The chapter on post-operative treatment is particularly valuable.

Attention is directed to the management of punctured wounds in the prevention of tetanus which should be more generally carried out.

The chapters on abdominal surgery are well illustrated, and are extremely interesting as well as valuable.

On the whole the book should occupy an important place in the library of the busy surgeon who is anxious for a ready-reference volume.

ISIDORE COHN, M. D.

How It Happened: By A. G. Bettman, M. D., F. A. C. S. Philadelphia, F. A. Davis Co. 1931. pp. 110.

If there is a prize for unadulterated nerve it should be awarded to Dr. Bettman (whose first name is incidentally Adalbert). After reading his collection of Sandburgesque "pomes" anent medicine, one wonders if the young poet-doctor enjoyed writing them half as much as finding a publisher brave enough to print them. No doubt the studio sophisticates and drawing-room literati will defend "How It Happened" and label it Smart; other will dismiss the book as dribble. Subtly humorous or silly, it is a novel and unique departure.

MAURICE SULLIVAN, M. D.

Treatment of Epilepsy: By Fritz B. Talbot, M. D. New York, Macmillan Company. 1930. pp. 308.

This is a monograph on a very important subject and there is at present great need for a book of this character.

In the preface the author informs us that this book is intended to present the facts which seem essential for an understanding of the disease from the point of view of the general practitioner, and to outline the practical methods of treatment. To the reviewer he has more than carried out his intentions.

The title of this excellent monograph would lead one to believe that it treats only of the treatment of epilepsy, but the author has judged wisely to include in the first part of the book in a complete, clear and brief manner short chapters dealing with the history and age incidence of the disease proving with statistical tables from the best available sources the importance of the recognition of the existence of the disease in early life when treatment is most apt to prove beneficial. Then follows the chapter on etiology. Here the latest views on the various etiological factors are discussed, including the intoxications, dysfunctions of the endocrine glands and, of great importance, at this time, the intimate relation between the metabolic processes of the body and the symptom complex known as epilepsy. In the chapter on pathology will be found the role played by intracranial pressure and the theory upon which the dehydration method of treatment is based. Equally interesting will be found the chapters on diagnosis, prognosis (especially under various form of treatment) and symptoms, including in the latter the epileptic equivalents and the atypical attacks. At the end of the first section will be found chapters on the treatment of the epileptic, including the treatment of the seizure, the removal of the probable causes by the reduction of the disturbing factors, the proper attention which should be given to physical, social and mental hygiene, education, diet and drugs.

In the second section of the monograph, covering more than half of the work, the author presents the subject of dietary treatment. He enters very minutely but clearly into the description of the factors necessary for an understanding of the dietary treatment, the general theoretical factors involved in ketosis, the clinical results of fasting, the clinical results of the ketogenic diet, the detailed management of the ketogenic diet with the methods of producing ketosis. All of this from

one who is known for his excellent research on the metabolism of epilepsy.

The reviewer finds it difficult in this short review to call attention to more valuable points in this book. Suffice it to say, that from the standpoint of actual practice it is invaluable and should be consulted by all those who treat epileptics.

L. L. CAZENAVETTE, M. D.

Diagnostic Methods in Internal Medicine: By Samuel A. Lowenberg, M. D., F. A. C. P. 2nd. rev. ed. Philadelphia, F. A. Davis Co. pp. 1032.

The popularity of this treatise on diagnostic methods is attested by the exhaustion of two large printings of the first edition and now the publication of this second edition after a period of two years. The book is profusely illustrated by some 547 good illustrations and charts. It is more than a work on physical diagnosis for it contains some one hundred pages on the interpretation of laboratory findings. This is a valuable addition. The reviewer believes that this volume is one of the most complete on this subject and can be recommended to both students and practitioners.

RANDOLPH LYONS, M. D.

Heart Disease: By Paul Dudley White, M. D. New York, The Macmillan Company, 1931. pp. 931.

Dr. White's monograph is the most important contribution to recent literature in this field. It covers adequately all of the modern conceptions of heart disease and all that is latest in diagnosis and treatment. Hence, it can be regarded as authoritative. Dr. White's selection of what is to be presented and what is to be emphasized shows the sound judgment of the ripe clinical observer and experienced teacher. It is a book whose easy style tempts one to read from cover to cover, and to whose pages one will acquire the habit of referring when seeking aid. It is of such monographs that the doctor may build up a library dependable and helpful, a collection of good friends, as it were. The constant allusion to the history of the development of our knowledge of heart disease adds greatly to the interest and value of the text; particularly stimulating is the inclusion from time to time of extensive quotations from epoch-making contributions by past masters. Such, for example, are quotations from Laennec's and Auenbrugger's original communications on percussion and auscultation respectively, Heberden's description of angina pectoris, and Stokes' and Adams' first report of heart block. The extensive

and very complete bibliography adds additionally to the value of the work.

I. I. LEMANN, M. D.

Diabetes: Its Treatment by Insulin and Diet: A Handbook for the Patient. By Orlando H. Petty, A. M., M. D., F. A. C. P. 5th ed. rev. Philadelphia, F. A. Davis Company. 1931. pp. 231.

A good, clear, dependable guide for the diabetic patient. The appearance of its fifth edition is an indication of its apparent popularity. There are a number of these handbooks for diabetic patients by various authors. Most of them are about equal in merit. They constitute a very important factor in the education of the diabetic patient and in his proper treatment. Every doctor treating diabetic patients should familiarize himself with some of these guides and select one which he can recommend and prescribe for his patients.

I. I. LEMANN, M. D.

The Treatment of Chronic Deafness by the Electrophonoid Method of Zund-Burguet: By George C. Cathcart, M. A., M. D. 2nd ed. Lond., Oxford University Press. 1931. pp. 126.

Chronic deafness of such frequent occurrence is such a depressing physical handicap to its victims that any method of treatment offering a ray of hope for its alleviation should be thoughtfully considered. It is a debatable question whether marked deafness is more depressing mentally to the sufferer than blindness but every otologist has his share of deaf persons with head noises who speak of contemplating suicide.

The Zund-Burguet electrophone was devised by Dr. Zund-Burguet, of Paris, who is not a physician, but a physicist. He originally intended his instrument to be an aid in the re-education of the deaf and dumb. Later it was used as a re-educative method of treating deafness by means of auditory exercises was used as long ago as the first century A. D., and has been revived and used at various times since then. Auditory exercises are today used in selected cases in the training of speech for the deaf and dumb, being used to give the pupil the sense of pitch without which he never develops a properly modulated voice.

The electrophone of Zund-Burguet reproduces the sound vibrations of the whole gamut of the human voice and is thus intended to give requisite physiological stimulus to the ear. It produces pitches of sounds ranging from 80 to 3500 dvs., these being the frequencies of practical importance to the human ear. Volume may be regulated at will. In addition to sound, the apparatus, by

means of a secondary current imposed on the primary one, produces what Cathcart calls "molecular massage" which is felt as a gentle tickling in the ear and tends to relieve the sense of fullness in the head complained of by most deaf people. The author gives detailed instructions for operation of the electrophone with numerous exercises for treatment of the deaf.

The author gives his results from the treatment of 665 cases of deafness by this method. Of 187 cases of nerve deafness 138 or 73.8 per cent improved. Of 261 cases of chronic otitis media (not classified into suppurative and non-suppurative) 174 or 66.6 per cent improved. Of 217 cases of otosclerosis, 117 or 53.9 per cent improved. Taken as a whole 64.5 per cent of 665 cases of chronic progressive deafness were improved.

H. KEARNEY, M. D.

Crippled Children; Their Treatment and Orthopedic Nursing: By Earl D. McBride, B. S., M. D., F. A. C. S. St. Louis, C. V. Mosby Co. pp. 280.

This book will be of great help to nurses, educators and all who are interested and have under their supervision the care of crippled children. It is a very readable book and should appeal strongly to internes and nurses.

There are chapters on the use of plaster paris, adhesive plaster, orthopedic equipment and physical therapy. The various crippling diseases are explained and their treatment outlined. There is an appendix giving definition of orthopedic terms which will readily be appreciated.

The author is a personal friend of your reviewer and I can speak for his painstaking care in the treatment of crippled children.

EDWARD S. HATCH, M. D.

Handbook of Physiology: By W. D. Halliburton, M. D., LL. D., F. R. C. P., F. R. S. and R. J. S. McDowall, M. B., D. SC., F. R. C. P. (Edin.). 19th ed. Philadelphia, P. Blakiston's Son and Co. 1930. pp. 842.

During fifty-four years this book, known as Kirkes' Physiology, saw thirteen editions in succession edited by a number of physiologists all of whom were connected with St. Bartholomew's Hospital. In 1896 Professor Halliburton took over the work incident to bringing out a new edition. In twenty-nine years under Professor Halliburton's guidance, seventeen editions were published, so, as the book had become an entirely new one, the name of Kirkes was dropped, and *Halliburton's Physiology* became its recognized title. In 1928 another revision became necessary; and as Professor

Halliburton found that he needed help in preparing it, the assistance of his successor at King's College, Professor McDowall, was secured.

Although the authors in their preface point out that in holding with the advances in Physiology, which make it no longer necessary to write a text book of Physiology on an anatomical basis, they have omitted much of the detail of histology which earlier editions carried, the reviewer is convinced that there are still far too many illustrations of gross and microscopic anatomy. The first four chapters might have easily been omitted and there is too much chemistry for a book dealing with Physiology in the usual meaning of the word. The subject matter is handled too briefly to be adequate. This is notably so in the case of the electrocardiogram and the glands of internal secretion.

HENRY LAURENS, Ph. D.

Diet Book for Doctor, Patient and Housewife: By Marguerite Requa Rae. London, Oxford Univ. Pres. 1931. pp. 197.

It merits no particular considerations.

I. L. ROBBINS, M. D.

PUBLICATIONS RECEIVED.

P. Blakiston's Son & Co., Philadelphia: The Doctor and His Investments, by Merryle Stanley Rukeyser, B. Lit., M. A. Recent Advances in Medicine, by G. E. Beaumont, M. A., D. M. (Oxon), F. R. C. P., D. P. H. (Lond.), and E. G. Dodds, M. V. O., M. D., Ph. D., B. Sc. Recent Advances in Pulmonary Tuberculosis, by L. S. T. Burrell, M. A., M. D., F. R. C. P. (Lond.).

Oxford University Press, New York: Injuries and Sport, A General Guide for the Practitioner, by C. B. Heald, C. B. E., M. A., M. D., M. R. C. P. (Lond.).

W. B. Saunders Company, Philadelphia: Collected Papers of The Mayo Clinic and the Mayo Foundation, by Mrs. Maud H. Mellish-Wilson, Richard M. Hewitt, B. A., M. A., M. D., and Mildred A. Felker, B. S. Proctoscopic Examination and the Treatment of Hemorrhoids and Anal pruritus, by Louis A. Buie, B. A., M. D., F. A. C. S. A Text-Book of Medical Diseases for Nurses, by Arthur A. Stevens, A. M., M. D., and Florence Anna Ambler, B. S., R. N. A Clinical Study of Addison's Disease, by Leonard G. Rowntree, M. D., and Albert M. Snell, M. D.

Lea & Febiger, Philadelphia: Accidental Injuries, by Henry H. Kessler, A. B., M. D., F. A. C. S., F. A. P. H. A.

Williams & Wilkins Co., Baltimore: International Studies on the Relation Between the Private and Official Practice of Medicine with Special Reference to the Prevention of Disease, by Sir Arthur Newsholme, K. C. B., M. D., F. R. C. P.

New Orleans Medical

and

Surgical Journal

Vol. 84

SEPTEMBER, 1931

No. 3

THE BURDEN OF SYPHILIS AND GONORRHEA IN NEW ORLEANS.*†

WALTER CLARKE, M. A., M. B., L. R. C. P.
(Edin.)‡

NEW YORK.

Until recently statistics as to the prevalence of syphilis and gonorrhea in American communities were almost entirely lacking. Although many States require the reporting by physicians of cases of syphilis and gonorrhea which come under their care, it is a well known fact that many physicians do not report their cases, and it is only gradually that this phase of health work is improving. A procedure developed in Europe, was first used in the United States in 1926 by the American Social Hygiene Association, and later adopted by the United States Public Health Service, for learning the number of cases of syphilis and gonorrhea, by stage of disease, by color, and sex, actually under treatment in private practice and in public institutions on a given day. It was

recognized that this revealed only a minimum number of cases in a given community, as a large number of individuals suffering from syphilis and gonorrhea who seek treatment from druggists and from quacks, and in addition those who entirely neglect to secure medical aid, cannot be included in these prevalence studies. From May, 1925, to February, 1929, twenty-five large and small communities in various parts of the United States had been surveyed by this method, and the population of the areas surveyed was 24,498,000, which constitute about 20 per cent of the total population in the United States. The average number of cases of syphilis and gonorrhea actually under treatment in the United States at a given time, according to these surveys, was 7.46 per thousand.

With the co-operation of the United States Public Health Service this method of investigation was applied in the course of the New Orleans Social Hygiene Survey. Very valuable assistance was given by the Orleans Parish Medical Society, and the success of our investigation into the number of cases actually under treatment in New Orleans on a given day, namely, February 2, 1931, is due in a very large degree to the co-operation of this Society, in view of the fact that without the assistance and good will of the individual physician it would not have been possible to collect the necessary data. The efficiency of the method is indicated by the fact that 99 per cent of the physicians in practice in

*Part I of the New Orleans Social Hygiene Survey made by the American Hygiene Association with the co-operation of the U. S. Public Health Service, under the auspices of the New Orleans Central Council of Social Agencies. Read before the Orleans Parish Medical Society, April 27, 1931.

†Certain sections of this report were prepared by a representative of the U. S. Public Health Service and are published by permission of the Surgeon General.

‡Associate General Director of the American Social Hygiene Association.

New Orleans responded to the questionnaire with the information desired.*

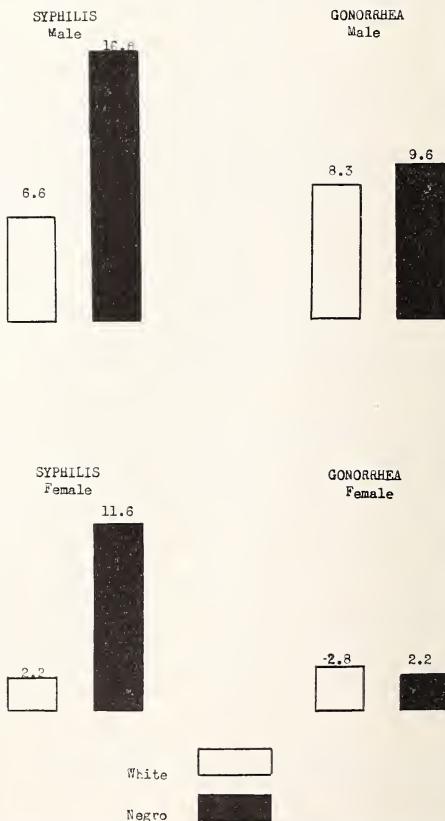
According to the results of this census of cases, there were on February 2, 1931, 4,820 cases of syphilis and gonorrhea under treatment by private practitioners or in public institutions, including the hospitals, prisons, and eleemosynary institutions. This equals a rate of 12.45 per thousand which is among the highest obtained in any of the surveys made by the United States Public Health Service and the American Social Hygiene Association. Average venereal disease rates in a number of individual cities over 100,000 in size also with large colored population, may be compared with New Orleans, as follows: Norfolk, Virginia, 6.8 per thousand; Knoxville, Tennessee, 9.2; Richmond, Virginia, 9.5; St. Louis, Missouri, 15.8; Memphis, Tennessee, 19.9.

The number of cases of syphilis under treatment in New Orleans was 2,676, a rate of 6.9 per thousand. The average rate for syphilis found in the twelve studies previously mentioned was 4.1 per thousand. The rate per thousand for gonorrhea in New Orleans was 5.5, there being 2,144 cases reported under treatment. This again compares with the average rate of 3.4 per thousand in the group of studies.

Both white and colored patients show higher than average rates in New Orleans. The previous average for white patients was 7.9 per thousand, while in New Orleans it was 9.9 per thousand. The previous average rate for colored patients was 11.0 per thousand, while in New Orleans it was 19.7 per thousand. On analysis it appears that the great difference in rate per thousand between colored and white people in New Orleans is to be found in those suffering from syphilis. Thus the rate for colored males for syphilis is 16.8

as compared with 6.6 for white males. These rates for males under treatment are parallel though at a somewhat smaller figure to the rates for females under treatment for syphilis, 11.6 as compared with 2.2 per thousand white females.

Rates for gonorrhea by race are more uniform. The rate for colored males with gonorrhea is 9.6 per thousand and for white males, 8.3. For females, the rates are similar, being 2.2 for colored females, and 2.8 for white. Thus it appears that there are actually more white females under treatment for gonorrhea than colored females. These facts are well illustrated in Figure 1. This shows that in



*A detailed report of this census of cases will be published in due course by the United States Public Health Service. Only a preliminary summary can be given here.

Fig. 1. Syphilis and gonorrhea rate per 100 population under treatment on Feb. 2, 1931, separated by sex and color.

New Orleans there are per thousand population more than twice as many colored males, and five times as many colored females under treatment for syphilis as there are white males and females. This, it should be borne in mind, includes not only patients who are attending clinics, but also those who are treated in private practice. It may be pointed out, however, that this is not a unique situation and that a similar state of affairs has been found in many other surveys. The high prevalence rate among the colored part of the population has been brought out with great emphasis in the course of a Wassermann

syphilis, the rate per thousand is 41 for colored males as compared with 20 for white males. The reverse of these rates is true for gonorrhea in the male, being 22 per thousand for colored as compared with 42 per thousand for white males. The colored female syphilis rate is 8 per thousand as compared with the rate for white females of 4.9, while the rate for gonorrhea in the colored female is 10.9 as compared with 13.3 for white females.

Estimates based upon these incidence rates give the following results (Table 1) as to the number of cases to be expected in the course of one year:

TABLE 1. ESTIMATED ANNUAL ATTACK RATE

	Male		Female		Total
	Rate	Estimated No. of Cases	Rate	Estimated No. of Cases	
Syphilis					
White	20	3,360	4.9	838	
Colored	41	2,255	8.0	504	
Total		5,615		1,342	6,957
Gonorrhea					
White	42	7,056	13.3	2,274	
Colored	22	1,210	10.9	687	
Total		8,266		2,961	11,227
Grand Total					18,184

survey of negroes on the cotton plantation of Mississippi where routine Wassermanns of 2,300 negroes over one year of age revealed 24 per cent positive. Studies conducted by prenatal clinics which include a routine Wassermann on all pregnant women who attend, bear out similar facts. Dr. J. R. McCord in his clinic in Atlanta found 23 per cent positive among the colored patients attending the clinic. All the evidence therefore would seem to point to a greater prevalence of syphilis among Negroes than among white people and this is evidently as true in New Orleans as it is elsewhere.

The annual incidence rate based upon the findings in the same one-day census in New Orleans during the period of January, 1931, gives the following results: For

It has been estimated by the New York State Health Department that it costs \$200 to treat adequately one case of syphilis, and \$60 to treat adequately one case of gonorrhea. Assuming that the cost of treatment of these cases would be much less in New Orleans than in New York State, we may estimate \$100 as the cost for a case of syphilis and \$30 for a case of gonorrhea adequately treated in New Orleans. This, according to the incidence figures given above, would give the appalling sum of \$1,033,510 for the treatment of new infections alone of syphilis and gonorrhea in New Orleans in the course of one year. This does not take into account cases of longer duration still under treatment from past years, nor does this figure given in money values consider the physical suffering, the pain brought to the fami-

lies of the infected, the loss of time at labor, nor the final mortality rate, especially from syphilis.

Regarding the 4,820 cases of syphilis and gonorrhea under treatment on a given day, February 2, in New Orleans, it is important to inquire where they were treated and by whom. The returns of the prevalence study indicate that fifty-two per cent of the cases of syphilis and thirty-seven per cent of the cases of gonorrhea were under treatment in public clinics. When, however, these patients were separated by race, it is found that a far larger number of colored patients than white patients are under treatment in public clinics. The figures are as follows: Colored syphilis patients treated at public expense, 1,219 or 86 per cent—colored gonorrhea patients, 357 or 63 per cent; white syphilis patients, 450 or 36 per cent—white gonorrhea patients, 408 or 26 per cent.

Assuming that the prevalence rates discovered in the course of the present study are reasonably correct, it is of interest to compare the number of newly treated cases of syphilis and gonorrhea occurring in New Orleans in the course of one year, with those reported under the law to the city and state health authorities. During the fiscal year ending 1930, there were

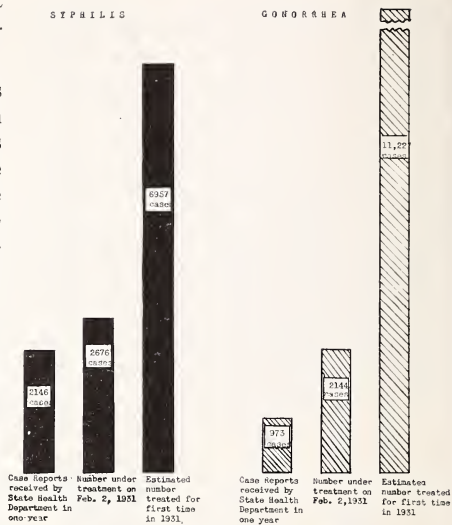


Fig. 2. New Orleans Venereal Disease Cases reported to State Health Department compared to data collected in prevalence study.

under treatment in New Orleans, 2,146 cases of gonorrhea. Figure 2 illustrates this comparison. It will be seen, therefore, how comparatively few cases are reported in accordance with the terms of the law by institutions and physicians in New Orleans. The following figures give an indication of reports during other years:

TABLE 2. CASES REPORTED TO STATE BOARD OF HEALTH

	1928	1929	1930
Number of Cases of Syphilis.....	4,163	2,767	2,437
Number of Cases of Gonorrhea.....	2,224	1,202	1,273

reported to the State Board of Health, 2,436 cases of syphilis of which 2,146 were from New Orleans. Our prevalence study indicates that on one given day there were more cases of syphilis under treatment in New Orleans than were reported in the course of one whole year to the city health department, namely, 2,676 cases. During the year 1930 there were reported to the State Board of Health, 1,273 case of gonorrhea, of which 973 were from New Orleans; while there were on one given day

These figures indicate a substantial reduction in the number of cases reported during recent years. This reduction is shown not only in figures for the State as a whole, but also for the City of New Orleans. It is suggested that the city and state health authorities should inquire into this decrease in reporting of syphilis and gonorrhea. There is no reason to suppose, so far as we have been able to discover, that there has been a decrease in the number of cases. As a matter of fact, 1929,

appears from hospital records to have been the high point in the number of cases of syphilis admitted for treatment.

The point, however, that it is desired to emphasize at this time is a comparison in the number of cases of venereal diseases, so-called, with the number of cases of other common and important diseases. Table 3 gives the number of cases reported for a number of important diseases, 1928 to 1930, Figure 3 shows a comparison between them, and syphilis and gonorrhea.

TABLE 3. CASES REPORTED TO STATE BOARD OF HEALTH, 1928-29-30.

Year	Pulmonary Tuberculosis	Measles	Pneu- monia	Gonor- rhea	Gonorrhea New Orleans	Syphilis State	Syphilis New Orleans	Malaria
1928	2,338	5,530	3,146	2,224	1,376	4,163	3,693	1,789
1929	2,415	1,811	3,394	1,202	876	2,767	2,436	1,495
1930	1,786	2,267	1,273	973	973	2,436	2,146	1,001
Total.....	6,539	9,127	8,807	4,699	3,225	9,366	8,275	4,285

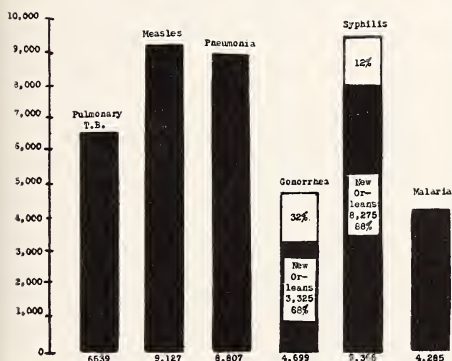


Fig. 3. Morbidity Reports to State Board of Health 1928-29-30.

Syphilis will be seen to be substantially higher than any of the other reported diseases when a three-year period is taken into consideration. The figure further indicates that 88 per cent of the cases of syphilis reported to the State Board of Health were reported from the City of New Orleans, and 69 per cent of the gonorrhea, and it is interesting to note in this connection that New Orleans includes only about 21 per cent of the population of the State as a whole.

Thus it is seen that the burden of syphilis alone is greater than any other single

infectious disease in Louisiana and New Orleans, and if taken together with gonorrhea and chancroid, is even more dominantly the most important single public health question at present faced by the City of New Orleans and the State of Louisiana. Not only so, but New Orleans being the largest and most important city of the State reports a disproportionately large percentage of the total number of cases notified to the State health authorities. This is doubtless due to many fac-

tors, among which may be mentioned the fact that many patients suffering from syphilis and gonorrhea are attracted to New Orleans for competent treatment and hospitalization. Large state institutions, such as the Charity Hospital, contribute heavily to the cases reported to the State Board of Health.

Table 4. Certain Morbidity and Mortality Statistics from the Biennial Report of the Board of Health for the Parish of Orleans and the City of New Orleans (1925-1930 inclusive).

	White		Colored	
	Cases	Death	Cases	Death
Malaria	521	18	74	15
Pneumonia	2,071	1,794	2,249	2,038
Smallpox	38	—	128	2
Tuberculosis	3,349	1,994	2,582	2,046
Chancroid	698	1	530	1
Gonorrhea	4,864	6	3,576	5
Syphilis	5,018	334	12,410	717

Bearing in mind the fact that 88 per cent of the cases of syphilis reported to state boards of health are from the city of New Orleans, it is interesting to review the statistics of mortality due to syphilis during the years 1928 and 1929. Tables 4 and 5 compiled from official records give an interesting picture of the distribution of mortality due to syphilis by age and color

in recent years. In 1928 there were 500, and in 1929, 456 deaths reported to the State Board of Health. In 1929, this equalled a rate of 28 per 100,000 of the white population, and 302 per 100,000 Negro. The proportion of colored to white persons in New Orleans is about one to three. This preponderance of death due to syphilis among colored persons is of interest, but it is only in harmony with the greater incidence of syphilis among colored people as found by our prevalence study, and other investigations which have been made both among rural and city population.

Table 5. Deaths from Syphilis by Color and Age, 1928-1929.

	White		Colored	
	1928	1929	1928	1929
Under 1 year	19	12	93	83
1 year	1	3	10	6
2 years	1	0	3	2
3 years	0	0	1	2
4 years	1	0	0	0
5-9 years	0	0	1	1
10-14 "	1	0	2	6
15-19 "	1	2	16	12
20-24 "	2	2	38	29
25-29 "	3	4	39	25
30-34 "	5	7	33	15
35-39 "	2	8	28	36
40-44 "	8	12	34	35
45-49 "	14	9	31	23
50-54 "	6	13	28	34
55-59 "	7	7	17	14
60-64 "	5	4	21	8
65-69 "	3	9	14	11
70-74 "	2	3	10	4
75-79 "	3	1	3	4
80-84 "	0	0	2	4
85-89 "	0	0	0	1
90-94 "	0	0	0	0
95-99 "	0	0	0	0
100 years and over	0	0	0	0
Unknown	1	0	1	5
Total	85	96	415	360

Over the two-year period covered in Table 5, 32 per cent of all deaths from syphilis occurred in individuals under one year of age, both colored and white. The total infant mortality rate for New Orleans

was 78 per thousand births in 1928, and 80 in 1929. Syphilis caused 14 per cent of all infant deaths in 1928, and 12 per cent in 1929. These are of course the infants born of syphilitic mothers and they die of congenital syphilis, a condition which is easily preventable by suitable treatment in pregnancy.

The biennial reports of the New Orleans Health Department give some interesting figures as to stillbirths in public and charitable institutions. During the period 1925 to 1930 inclusive, there were 1,706 white stillbirths and 1,216 colored stillbirths, a total of 2,922. The appended Table 6 gives the figures by years.

Table 6. Stillbirths in New Orleans. New Orleans Health Department. Mortality in Public and Charitable Institutions.

Year	White	Colored	White and Colored
1925	307	219	526
1926	310	194	504
1927	292	250	542
1928	296	257	553
1929	247	154	401
1930	254	142	396
Total	1,706	1,216	2,922

It is satisfactory to notice that both in the colored and white groups there has been a marked decrease. Syphilis is the greatest single cause of stillbirth. Professor J. Whitridge Williams, of Johns Hopkins University, makes the following statement: "Of 302 fetal and neonatal deaths resulting from 4,000 pregnancies, 34.4 per cent were due to syphilis." The reduction in the number of stillbirths is attributed to some extent at least to the better and more universal recognition and treatment of syphilis as a complication of pregnancy. The prenatal clinics at the Charity Hospital and at the Touro Infirmary, and the excellent work of the Child Welfare Association in recognizing and treating syphilis in pregnancy must have resulted in a marked reduction in the number of stillbirths due to this disease.

Unfortunately, exact figures as to the result of treatment of syphilis in pregnancy are not available in New Orleans as recent studies of the results of the excellent work of these three institutions have not been made.

Not only in New Orleans, but elsewhere throughout the United States, the reporting of deaths due to syphilis is notoriously incomplete. Yet, during the year 1928, there were in the State of Louisiana 500 deaths from syphilis, 16 from tabes dorsalis, and 56 from general paralysis of the insane. (Table 7.)

Table 7. Excerpt from Biennial Report of the Louisiana State Board of Health.

	1928			1929		
	Total	White	Colored	Total	White	Colored
Syphilis	500	85	415	456	96	360
Tabes Dorsalis	16	6	10	19	14	5
General Paralysis of the insane	56	27	29	72	23	49

During 1929, there were 456 deaths from syphilis, 19 from tabes dorsalis, and 72 from general paralysis of the insane. The above table gives a clear indication of the great preponderance of colored individuals among those who died of syphilis, including its late manifestations. These figures unfortunately

pital as in-patients come the wrecks of untreated or inadequately treated syphilis patients occupying beds in practically every ward of the hospital. The study of the Charity Hospital report for the years 1927 to 1930 show the burden borne by that institution, due to syphilis, gonorrhea, and chancreoid. The pathological reports of the hospital were studied with a view to learning how many patients were admitted to the hospital because of syphilis, and what eventually happened to these patients. During the four years under consideration, 4,776 patients having syphilis, gonorrhea, or chancreoid, occupied hospital beds. These of course were in addition to the very large numbers treated as out-patients in the clinics of the hospital. As would be expected, by far the largest proportion of these were cases of syphilis, and of the cases of syphilis more than twice as many were colored patients as were white. Taking syphilis alone, we find that the results are not encouraging, as the total mortality rate for cases admitted was 77.6 per thousand cases. The case mortality rate for white patients was 86.2 per thousand and for colored patients 74.4. Table 8 gives a summary of the analysis of the records of the hospital for the four-year period under consideration:

Table 8. Charity Hospital
Number of Cases and Results of In-patient Treatment for 1927-1930.

Diseases	W. C. T.			W. C. T.			W. C. T.			W. C. T.			W. C. T.		
	W.	C.	T.	W.	C.	T.	W.	C.	T.	W.	C.	T.	W.	C.	T.
Syphilis.....	1,067	2,365	3,451	1	1	2	560	1,370	2,030	413	718	1,131	92	176	268
Gonorrhea.....	606	445	1,051	20	20	40	396	327	723	212	110	322	0	1	1
Chancreoid.....	68	206	274	0	2	2	47	148	195	21	56	77	0	0	0
Total	1,741	3,015	4,776	21	23	44	1,003	1,845	2,948	646	884	1,530	92	177	269

say nothing about the large number of individuals who died of cardio-vascular disease due to syphilis. It is estimated that at least 15 per cent of all the deaths due to heart disease are the result of syphilis.

It is at the Charity Hospital that the largest number of cases of syphilis and gonorrhea are treated. To this great hos-

Syphilis Case Mortality Rate—

White	86.2	per thousand
Colored	74.4	" "
Total	77.6	" "

Bearing in mind that syphilis and gonorrhea are preventable diseases and curable when adequately treated in their early

stages, the loss of life and efficiency, the loss of time, and the cost of treatment presented by the above table, is an impressive argument for devoting more attention to the prevention of these diseases and to their early and efficacious treatment.

When the Charity Hospital was first placed in operation in 1735, it doubtless included among its earliest patients some who were there because of syphilis—patients who complained of paralysis, heart trouble, liver disease, threatened blindness or deafness, diseased joints, chronic ulcers, and other conditions due to syphilis which under various names are to be found occupying beds in all departments of general hospitals. It is appalling to think of the host of syphilitic patients who have, since its foundation, passed through the doors of this great institution. Some comprehension of the numbers may be gained from the fact that on one certain day in February, 1931, there were by actual count, 1,191 cases of syphilis under treatment by the hospital, of whom 1,011 were in the out-patient department, and 180 were in in-patient departments. In addition, there were 486 cases of gonorrhea, all but 36 of whom were being treated as out-patients. This gives us a total of 1,667 cases of syphilis and gonorrhea, who on a particular day were under treatment of the Charity Hospital. One cannot venture even a guess as to the probable number of cases of syphilis and gonococcal infections to which the hospital has ministered during the two hundred years of its existence.

According to the figures obtained in the course of the present survey there were among the total of 1,667 patients in the care of the hospital on February 2; 1,339 whose residence was given as New Orleans, the remaining 328 came from other points within the State of Louisiana, with perhaps a few from outside the state. Of the total, 432 were white, and 1,235 were colored. Thus, it is seen that colored New Orleans patients constitute 75 per cent of the burden of the Charity Hospital in caring for

syphilis and gonorrhea. The details are given in the table below:

Table 9. Location of residence of patients reported under treatment or observation at Charity Hospital as of February 2, 1931

In-Patient		
Residence—	Syphilis	Gonorrhea
Within New Orleans	114	13
Outside New Orleans	66	23
Total	180	36
Out-Patients		
Residence—	Syphilis	Gonorrhea
Within New Orleans	818	394
Outside New Orleans	193	46
Total	1,011	440

The cost per patient per day in the Charity Hospital is at a remarkably low figure. The following table gives the cost in the out-patient and in-patient departments of the past four years:

Table 10.				
Cost per patient per day—	1927	1928	1929	1930
Out-patients ..\$.25	\$.22	1-3	\$.21	\$.25
In-patients 1.74	1.70		1.58	1.53

In commenting upon this remarkably low figure, the report of the Charity Hospital for 1928 made the following statement: "Certainly this is a record of which we need not be proud. That it can be done at all is due solely to the economics and stinting on necessities forced upon us in order to keep within our appropriations, which, compared with similar institutions, are appallingly small."

The costs of care at the Charity Hospital in 1930 were, for in-patients, \$1.53, and for out-patients, 25c per patient per day. In 1930, there were the huge number of 37,277 visits for the treatment of syphilis, gonorrhea, and chancroid, in the out-patient department of the Charity Hospital, which, at a cost of 25c per day, would amount to \$9,319. During the same year about

11,100 doses of arsphenamine were administered in the out-patient department.*

It is fair to add something to the average cost per treatment as this compound is comparatively expensive. At the low estimate of 10c as a surplus to the average of 25c per patient, per day, we would have to add \$1,110 to our total of \$9,319, making a total of \$10,429 for the treatment of venereal diseases in the out-patient department of the hospital.

Such patients as are absolutely in need of hospitalization are usually placed in the Genito-Urinary Ward of the Hospital. In this department, there are 85 beds available for genito-urinary patients, including those suffering from complications of syphilis and gonorrhea. Of these 85 beds, 42 are assigned to white patients and 43 are assigned to colored patients out of the total of 1,756 beds in the hospital.

Table 11. Work of "Genito-Urinary Clinics"

Charity Hospital.					
Out-Patient Department					
	1927	1928	1929	1930	Total
No. microscopic examinations	899	1,062	791		
No. patients referred to hospital	280	294	357	248	1,179
No. doses of arsphenamine	9,313	11,451	11,108		
No. doses of tartar emetic	321	431	674		
No. doses of tartar emetic	321	481	674		
Total number of treatments.....	30,771	37,752	38,425	37,277	144,225

It is difficult to estimate the cost of the in-patient treatment of syphilis and gonorrhea, as these conditions frequently were present as a complication rather than as a primary cause of hospitalization. For the purposes of a rough estimate, we may use the hospital report figure of 978 cases of syphilis treated as in-patients in 1930. These syphilitic in-patients are assumed to have remained thirty days each in hospital. The 293 gonorrhea in-patients are assumed to have spent fifteen days in hospital. This gives us 29,340 patient days for syphilis, and 4,395 patient days for gonorrhea; a total of 33,735 patient days, which at \$1.53 would cost the hospital \$51,614.55.

Adding this \$51,614.55 for in-patient care to the \$10,429 for out-patient treatment, we have a total of \$62,043 as the estimated cost of syphilis and gonorrhea to the Charity Hospital alone in the course of the year 1930.

*The exact number of doses of arsphenamine administered in 1930 was not available at the time of the survey; hence the approximate figure for 1929 has been used in this calculation.

It is well known of course that the vast majority of cases of early syphilis and acute gonorrhea can be adequately treated as out-patients, so that this is not an unusually small number of beds for the genito-urinary patients. There are but few cities that provide adequately for the hospitalization of patients suffering from syphilis or gonorrhea. The point to be emphasized here is the small cost of out-patient treatment as compared with bed treatment—in 1930 it was 25c per patient visit as compared with \$1.53 per patient day. The sound policy, therefore, is so to perfect the out-patient care of indigents having syphilis or gonorrhea that they may not later become through neglect or insufficient treatment, occupants of hospital beds.

A routine Wassermann is done on practically all admissions to hospital—a very commendable practice. The work of the hospital laboratory in making Wassermann tests of blood and spinal fluid during the period 1926-30 inclusive is shown in the table following:

Table 12. Charity Hospital.

Work of the Hospital Pathology Department.

Wassermann (Blood and Spinal).

	Blood	Spinal
1926	32,398	1,243
1927	32,728	1,337
1928	29,347	1,184
1929	39,918	2,030
1930	43,211	2,026
Total	177,602	7,820

It has been estimated that in a large laboratory of a northern city the cost of performing a Wassermann blood test is about 40c. The cost of the spinal Wassermann is not less. At this cost rate the work of the Charity Hospital Laboratory in performing 43,211 blood Wassermanns and 2,026 spinal Wassermanns, a total of 45,237 in 1930, would have been \$18,094.80. Perhaps the cost rate in New Orleans is less than 40c, but the total cost for performing more than 185,000 Wassermann tests in the course of five years was surely a large sum.

The Charity Hospital is free in all its departments and services; that is, it is free to the patients who are accepted for treatment, the cost of medical care being borne by the tax payers of the state and from various endowments and gifts. There are other hospitals, however, that provide "Part pay" medical care both to in-patients and out-patients, including those having syphilis and gonorrhea. Part pay patients are those who cannot pay the full cost of medical care but who can contribute toward that cost. The Touro Infirmary conducts clinics for the treatment of syphilis and gonorrhea, called the genito-urinary (G.U.) clinics. Some of the patients are part pay patients, but most of them pay little or nothing at all.

According to figures kindly provided by the Touro Infirmary for the Genito-Urinary clinic, there were in the six-year period 1925-30 inclusive, 4,842 patients who made 71,064 visits to the clinic. The average cost per patient visit was 77c for the year 1930.

For 71,064 visits to the Genito-Urinary clinic during the six-year period, the cost to the hospital would at the 1930 rate have been \$54,719.28.

Figures are available showing the amounts collected during 1929 and 1930 from patients attending the Genito-Urinary clinic for the administration of salvarsan. In 1929, the number of patients visits to the "Salvarsan Clinic" was 3,790, and from these \$474.75 was collected, an average of 12c per patient visit. In 1930, the patients visit to the Salvarsan Clinic numbered 3,077, and \$136.00 was collected. This gives an average of \$0.04.

There are many instructive points to be noted in a study of these records. From January and February, 1929, there was a rapid fall in the average amount paid per patient visit, but the lowest average was reached in February, 1930. Again, the seasonal variation in attendance at the clinic shows the heaviest case load is carried during the spring and summer months. There are over 800 fewer patients in 1930 than in 1929. The association of these facts with the present economic depression and unemployment raises many serious questions. (Figure 4.)

A study of hospitals and clinics of New Orleans, made in 1926, under the auspices of the Central Council of Social Agencies,

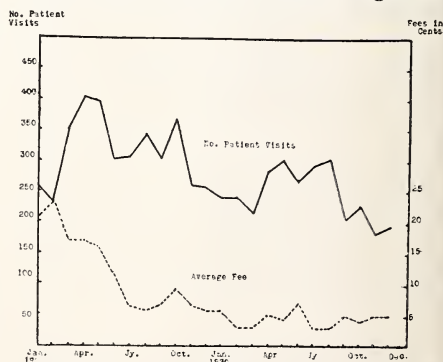


Fig. 4. Number of Patient Visits and Average Fees Collected in Salvarsan Clinic, Touro Infirmary, New Orleans, 1929 and 1930.

indicated that, as compared with other cities, New Orleans ranked high in provision of hospital care for her citizens. New Orleans ranked third in cities of similar size in the number of hospital beds per thousand population. New Orleans was fourth in the number of patients per thousand population, fifth in the number of days care. New Orleans ranked seventh in the amount per capita spent for hospitals, and sixteenth in the cost per patient day. The most interesting fact, however, was that New Orleans was first in the amount of free work done by hospitals of the city. In the hospitals of New Orleans, of the beds allocated to white patients, 57.4 per cent were free, and of the beds allocated to colored patients, 92.4 per cent were free. There were in the city's hospitals, 6.06 beds per thousand colored persons, and 6.48 per thousand white persons.

As to the clinics of New Orleans, the city stood second in per capita expense for all clinics; and first in the number of patients per capita, one out of every 2.6 persons in the city were clinic patients during a given period. New Orleans stood first also in the number of visits to clinics. It is important to notice that of these visits the ratio of colored to white was two colored to one white, while the ratio of the population was one colored to three white. On the basis of its investigation, the Committee in charge of this study of hospitals and clinics in New Orleans made the following statement:

"The Committee believes that the following conclusion is warranted: That the large amount of free hospital service and of clinic usage, which is not a proof or even a positive indication of hospital abuse (by patients who should pay), nevertheless points to a need in all hospitals for a careful study of this particular aspect of its intake problem."

The recent report of the Registration of Social Statistics of the University of Chicago, Departments of Hospitals, In-

patients, Out-patients, and Dispensaries, contained some interesting references to the situation in New Orleans. In eighteen cities, with a total estimated population of 6,053,000, the number of visits to clinics and dispensaries in 1929, was approximately 2,400,000, or 396 per thousand population. A comparison of the number of visits per thousand population in 1928 and 1929 shows that the volume of service reported by New Orleans far exceeds in both years the volume of service reported by any other city. As a matter of fact, it is about three times the nearest highest rival, which is Cincinnati. In 1929, the number of visits to clinics and dispensaries per thousand in New Orleans was 1,245, whereas Cincinnati, the next highest, was 438 per thousand. This means that in New Orleans there was more than one visit per capita of population. Of the total number of visits to New Orleans clinics in 1929, 85.7 per cent were free visits, 5.7 per cent were "part-pay" visits, and 8.6 per cent were "pay" visits. The figures for certain other large cities may be compared with those of New Orleans. Thus, 71.9 per cent of visits in Detroit, and 49.0 per cent of visits in Cleveland were free visits, with correspondingly lower percentage in the categories of "pay" and "part-pay" visits.

The above facts have been introduced because it is believed that they indicate that, in the clinics and hospitals of New Orleans, far more free medical care is provided than in most American cities. Observations made in the course of the present study of clinics and hospitals seem to indicate that what is true of the general hospital and clinic situation in New Orleans is equally true for patients suffering from syphilis and gonorrhea, namely, that the proportion of free patients is unusually high. This may account for the over crowding of certain venereal clinics in New Orleans. The Charity Hospital is a free hospital supported by state funds, but the facts brought out above in regard to the Touro Infirmary

ary, a private institution supported by funds from the Community Chest and from private donors, indicate that, even in a privately supported clinic, only a small number of patients can be classified as "pay" or "part-pay" patients.

Figures are not available upon which may be based estimates for the expenditure by the small clinics for the care of patients suffering from syphilis and gonorrhea, notably the City Health Department Clinic, the Mercy Hospital Clinic, and the St. Marks Community Center Clinic. The figures estimating the cost of medical care at the Charity Hospital, and the estimate based upon the incidence rate as established in the course of our prevalence study may be sufficiently impressive to bring home to readers of this report the enormous waste suffered by New Orleans and the State of Louisiana due to syphilis and gonorrhea. Our figures do not include any estimate of the great cost for caring for victims of general paralysis of the insane, and other varieties of neuro-syphilis, who during long periods require institutional care in mental hospitals. The costs of these diseases, however, cannot be estimated in dollars and cents, but are rather to be appreciated by case studies of individual patients, and their families. To spend more money on the prevention of these diseases, and on efforts to bring infectious individuals under treatment early, and to keep them under supervision until they are at least non-infectious, would be better public health policy, more humane, and better economics, than to care for the wreckage of syphilis and gonorrhea after these diseases have done their worst, and when there are no longer possibilities of cure.

In 1905, \$250,000 was spent on a campaign against yellow fever in New Orleans. Today yellow fever is practically unknown in this section of the United States. Other large sums of money have been spent for the conquest of typhoid fever, and of smallpox, with brilliant results. The public health problems presented by syphilis and

gonorrhea, are in some ways more difficult, and in other ways simpler than those of the previously mentioned diseases. We have methods for preventing and for curing both syphilis and gonorrhea, but in order to deal successfully with these diseases, the medical profession and health officers must have placed in their hands adequate financial resources, and adequate personnel with which to apply the established and proved methods of control. One of the greatest American authorities on public health, Dr. Hermann Biggs, asserted that "public health is purchasable, and within certain limits, any community can determine its own death rate." New Orleans can successfully combat syphilis and gonorrhea if adequate resources are made available to the medical and health authorities of the city, many of whom are numbered among the most distinguished of the United States.

APPRAISAL OF COUNTY HEALTH WORK BASED ON REDUCTION OF MORBIDITY AND MORTALITY.*

FELIX J. UNDERWOOD, M. D.,†

JACKSON, MISS.

Since the avowed purpose of county health work is the reduction of the so-called preventable diseases, it is logical to conclude that a fair appraisal of the results achieved by a county health department can be secured by an examination of the morbidity and mortality prevailing in a county before and after the inauguration of this activity, as well as by a comparison with the trend in the state at large. The county health departments in the State of Mississippi have been carrying on what may be regarded as a well-rounded program, considering their limited resources. The varied character of their programs coupled with their limitation of resources increases the difficulty of demonstrating tangible accomplishments in the prevention

*Read before the Louisiana State Medical Society, New Orleans, April 14-16, 1931.

†Mississippi State Health Officer.

of specific diseases. However, a survey of the situation led to the conclusion that an examination of our experience with typhoid fever would afford some insight into this question. This appeared likely from the circumstances that since the inauguration of these departments the State Board of health has consistently insisted that the improvement in the disposal of human excreta and the immunization of susceptible persons were the most practical means available to these departments to deal with the problem of this endemic. It, therefore, appears worthwhile to critically examine the accomplishments of these departments to ascertain whether demonstrable reduction in typhoid fever incidence has occurred which can be attributed to these activities.

This study was limited to those counties, nine in number, in which full-time health departments were organized prior to 1925, in order to have a minimal period of five years over which to study their effect. They were organized during the period 1917 to 1925. The periods for study were the three years immediately preceding organization and the five years subsequent thereto.

The counties were divided for study into two groups: Group No. 1, with less than one inoculation per person for the five-year period immediately following organization; group No. 2, with more than one inoculation per person for the five-year period immediately following organization.

The extent of privy construction is not appreciably different in either group for the five-year period following organization in each of which the data indicate that ample construction opportunities still exist.

The differences noted in typhoid fever incidence appear to be attributable to the more extensive vaccinations.

The following summary is given as a result of the study of the chart of Lee and Forrest Counties when compared with the State at large. Full-time service was

inaugurated in Lee County in 1919. The average annual case rate for typhoid fever for the five years prior to organization was 41.1 per 10,000 population with an annual death rate from this disease of 3.38. The case and death rates for the State at large for the same period were 32.21 and 3.41, respectively. The average annual case and death rates for Lee County for the eleven years of full-time service were 12.1 and 1.1, respectively, while the State case and death rates during this period were 13.57 and 1.78. The Lee County case rate was reduced from 41.1 to 12.1, while the rate for the State was reduced from 32.21 to 13.57, and the Lee County death rate reduced from 3.38 to 1.1 and the State rate from 3.41 to 1.78. The explanation of this perceptible difference in reduction lies in the fact that approximately 20 per cent of the homes in Lee County were provided with safe methods of excreta disposal and the accumulated inoculations amounted to 1.87 doses per person in the county. It is confidently felt that had better results in sanitation been secured greater difference could be observed.

The verity of this statement is seen by reference to the Forrest County chart. This represents eight years before and after the establishment of full-time service. The annual case and death rates in Forrest County during eight years of part-time service were 23.95 and 3.41, respectively, while the State case and death rates for the same period were 26.35 and 2.87. Why this low endemic rate in Forrest County? During 1916, the State Board of Health waged a very successful anti-soil pollution campaign in that county. During the war, Camp Shelby was located in this county and the public health service maintained an extra cantonment sanitation station in this area. The report of the surgeon shows that 6,170 people were inoculated, but no record is given of changes in methods of excreta disposal. However, the writer knows from personal observation that the City of Hattiesburg was cleaned up in this respect.

Since its organization, the local health department has almost completely sanitized the county, more than 90 per cent of the homes having been provided with a sanitary method of excreta disposal, and has administered 1.61 doses of typhoid vaccine per person in the county. What effect, if any, has this vaccination and sanitation campaign had upon the typhoid rates? For eight years of full-time service the average annual case and death rates were 5.25 and .41, respectively, while the average annual case and death rates for the State at large for the same period were 12.44 and 1.72, respectively. This was a reduction in case rate from 23.95 to 5.25, in Forrest, as compared to a State reduction from 26.35 to 12.44 and a reduction in Forrest in death rate from 3.41 to .41, while the State death rate reduction was from 2.87 to 1.72.

In Forrest County the initiation of privy construction was not followed by a marked decline in typhoid fever incidence which became apparent only when extensive vaccination was first practiced. In most of the counties, judging from the experience in Lee and Forrest, satisfactory results in reducing typhoid fever incidence will not be secured until the inoculation rate indicates that approximately two-thirds of the population has received the complete course of three inoculations. While the experience in Lee County indicates that vaccination largely alone will materially reduce the typhoid fever incidence, the experience in Forrest County indicates that where a vaccination program is combined with sanitation a higher degree of reduction is secured.

After five years of operation many of our county health departments have not yet either sufficiently promoted vaccination or sanitation to the point where they are showing the satisfactory effect on typhoid incidence.

Complete sanitation and immunization of at least two-thirds of the population should

be the minimal goal for the typhoid campaign.

In order that proper conclusions may be drawn when comparing the morbidity and mortality rates of the State as a whole with the rates of the counties included in this study, it is noted that for the period 1920 through 1929, counties which have always had a part-time health service have had approximately one-half as many inoculations per ten thousand persons as the counties included in this study.

THE AVERAGE ANNUAL CASE AND DEATH RATE PER 10,000 POPULATION, FROM TYPHOID FEVER FOR LEE AND FORREST COUNTIES AS COMPARED TO THE STATE AT LARGE FOR CORRESPONDING PERIODS.

	Case Rates		Death Rates	
	Lee	State	Lee	State
5 years part-time service.....	41.1	32.21	3.38	3.41
5 years full-time service.....	12.1	13.57	1.1	1.78
	Forrest		Forrest	
	County	State	County	State
8 years part-time service.....	23.95	26.35	3.41	2.87
8 years full-time service.....	5.25	12.44	.41	1.72

CONCLUSIONS.

1. Effective work in disease prevention requires that activities of county health departments be largely limited to measures of proven value in the control of specific diseases.

2. The most tangible results of county health work are manifested in the reduction of the incidence of specific diseases occurring as a sequel to the effective application of specific measures.

3. This trend can be satisfactorily demonstrated only when satisfactory and adequate records are kept by the county health organizations.

4. When these records fail to show an adequate reduction in disease incidence, after a reasonable length of time, it may be inferred that the activities of the local

health departments are insufficient to deal with the situation and are ample justification for the intervention of the central organization.

5. A typhoid fever vaccination rate of two-thirds of the population will show a marked reduction in the morbidity and mortality from typhoid fever.

6. A typhoid fever vaccination rate of two-thirds of the population and a sanitary privy rate of 95 per cent of homes will reduce the rate more than vaccine alone.

DISCUSSION.

Dr. J. George Dempsey (New Orleans): It is a pleasure to have this opportunity of opening discussion on the paper entitled: "Appraisal of County Health Work Based on Reduction of Morbidity and Mortality" by Dr. Felix J. Underwood, State Health Officer for Mississippi.

So long has he been actively identified with health work in Mississippi that I dare say Dr. Underwood's name is as well known in his native state as that of Bilbo or Harrison. Having been a constant visitor to Mississippi myself for the past forty years, I can appreciate all the more the decided advancement in health matters that has been made in that state under the skillful leadership of Dr. Underwood.

The opening paragraph of Dr. Underwood's paper states with commendable terseness the avowed purpose of county health work is, "the reduction of the so-called preventable diseases." Upon first reading this statement the thought struck me that it would be interesting to canvass our own state of Louisiana and find out just how many people realized what is the purpose of our parish health work. The fact that it is solely for the purpose of protecting the health of the people, might quicken in those people themselves that spirit of co-operation which is such a dire necessity for the attainment of the best results.

Dr. Underwood has shown just what county health work is worth. While this appraisal is founded only on morbidity and mortality for typhoid fever in a county before and after the inauguration of county health work, the statistics he gives nevertheless do afford an insight into the practical value of county health work.

The following figures and percentages are the results of the tabulation in the Vital Statistics Department of the Louisiana State Board of Health:

Year	Reported Cases	Reported Deaths	Death Rate Per 100,000	Health Unit Complete Typhoid Immunization	Directors of Health Units
1921	1033	325	17.8	6915	6
1922	1085	323	17.6	.....	6
1923	922	265	14.3	.....	6
1924	1252	410	21.9	19593	9
1925	2318	639	34.0	34306	11
1926	1187	333	17.3	9618	10
1927	1066	283	14.6	98196	21
1928	1049	262	13.4	48026	29
1929	825	221	11.2	83282	31
1930	1145	247	11.7	124337	31

In Louisiana the figures on malaria fever may also serve the same purpose. I regret that I have had only a brief few minutes in which to prepare for this discussion, otherwise I would have had tabulated a more elaborate set of figures to demonstrate this point. However I am pleased to quote the morbidity and mortality statistics on malaria fever in Louisiana for the past three years:

	Death Rate per 100,000		
	Deaths	population	Decrease
1928.....	251	12.7	.....
1929.....	206	10.4	2.3
1930.....	178	8.4	2
Total decrease in 1930 over 3-year period			4.3

While it cannot be said that parish health boards and units are entirely responsible for this creditable showing, it is quite evident that they have been dominant factors in making possible such a decided decrease in the death rate from this one disease alone. In parish health organization, such as sponsored by the State Board of Health and the Louisiana State Medical Society, rests the secret of the prevention of disease; and one can scarcely help agreeing with Dr. Underwood that in county health work lies the secret of the prevention of disease.

Certainly the Drought Fund voted by Congress and allocating \$200,000 to each state affected and the millions to be spent throughout the United States for the White House Conference on Child Health and Protection, will augment parish health work as it at present exists in Mississippi and Louisiana.

Dr. Underwood (closing): The reduction of morbidity and mortality is the yardstick of public health work and the only measure by which we may know that we are obtaining good results from our program.

I wish to thank Dr. Dempsey for his discussion of the paper and for the very nice things said about the public health program of Mississippi and the executive officer of the Mississippi State Board of Health.

SOME OF THE PROBLEMS CHALLENGING THE DOCTORS AND HEALTH OFFICERS IN MISSISSIPPI.*

J. T. GOOGE, M. D.,

MERIDIAN, MISS.

In undertaking this discussion it appears in order to set forth as clearly as possible the aims of the practitioner and the health officer. An accepted definition applying to the practitioner has been laid down as being, "for the relief of pain; restoration of the body from sickness; the prevention of disease; the promotion of health; and an ultimate extension of the life span." The aims of the health officer has been stated as, "for the prevention of disease; promotion of health, and extension of the life span." From these definitions it appears that public health is a special field rightly placed in the medical profession. It is likewise apparent that the practitioner, if he embodies in his activities a well-rounded program, should give equal thought to preventive measures. Hippocrates, the author of the oldest medical treatise in existence, the father of medicine, whom all doctors honor and revere, in specifying the duties of medical men, placed equal importance on the preservation of health and the curing of disease. No physician trained in the principles of his profession ignores the preventive side of his activities. The purpose of this rather vague preamble is to impress on our minds that the practitioner and health officer are to a great extent on common ground.

Repeated surveys and a look at the morbidity reports and death certificates as they come in from time to time from over

the state disclose that a few causes are responsible for the great majority of ailments and deaths among the young. Closely interwoven, united effort on the part of the profession would tend to reduce diseases and cut down death rates among our younger groups in a short time.

In surveys conducted in various parts of the state, it appears that approximately 34 per cent of the colored population more than fifteen years of age, and slightly less than 5 per cent of the whites in the same age group have a positive Wassermann blood reaction. If this be correct, there are on the basis of the last census 275,000 persons now suffering from syphilis in this state. Estimates may go wrong; let us be conservative and assume that we have only half that number, or 137,500. (The most skeptical should not doubt the existence of this number.) It is estimated conservatively that at least 33 per cent, or about 45,000 of these patients, are unable to pay for treatment. The practicing physicians can not afford to give their time and buy medicine for these cases without hope of a return on their investment. It is not within the scope of the County Health Officer's duties to do such work, and so he does not wish to treat them. These people are a hopeless lot confronting us. Does this not appear to constitute one of the problems confronting the profession, and should it not be met by some means through the various medical groups, state and community hospitals? There is a consciousness on the part of the profession of the tremendousness of such a problem in this state at this time as has never before existed.

Another health problem that exists in certain sections of the state, especially in the hill and coastal plain sections, as is evidenced by surveys made at different times, is the existence of intestinal parasites. In some communities the infestation in school groups exceeds 60 per cent. This, it seems, is not alone a public health problem, but constitutes one of the major

*Chairman's Address. Read before the Section on Hygiene and Public Health at the Sixty-fourth Annual Session of the Mississippi State Medical Association, Jackson, May 13, 1931.

problems confronting the entire profession. Every school child and many in other groups in these infested areas should be examined at least once a year and if found to have the disease, should be treated until cured. Sanitation of the home and school should receive proper consideration with regard to excreta disposal where the disease prevails.

The 1930 morbidity reports for the state registered a total of 50,477 cases of malaria. This is probably not exaggerated. Some cases may have been reported as malaria that were not, but many cases were not reported, never coming under a physician's care during their illness, thus making the total in the neighborhood of the number reported. A proper approach toward the solution of this problem is being made in the practice by many physicians of making a blood examination of all malaria suspects. When this method is universally followed, the foci of malaria may be fairly definitely charted and means applied for its prevention. Close work between practitioner, laboratory technician, and health officer will be required. It appears that progress in greatly reducing this disease is about to be made through the earnest efforts of Dr. Mark F. Boyd.

During 1929 there were 3510 cases of tuberculosis registered from morbidity reports of practitioners in the state. This without doubt is incomplete. It is claimed by some epidemiologists that there are ten active cases of tuberculosis in a community for every death occurring therein. If this be true, there were about 16,500 cases that year, as 1649 deaths were registered.

Lack of care of mothers during the prenatal, lying-in, and postnatal periods is reflected in a total of 584 deaths from causes connected with these states registered in 1929. Of this number, 326, or about 56 per cent, were white. This is food for thought. Likewise, a total of 929 deaths recorded of children in early infancy in that

year reflects a condition not met in the manner desired. Of this number, 577 were white, approximately 62 per cent; likewise, food for thought.

More than 30 per cent of the men examined during the World War were rejected either by local boards or after they reached camp because of physical unfitness. It is common knowledge, gained from reports of physical examinations of school children and yearly health examinations made by industries and insurance companies of other groups, that a large majority of both children and adults are in possession of one or more physical defects which interfere with their efficiency and well being. A glance at mortuary statistics reflects the grim story that too many young people are dying.

For some time there has been a movement urging a careful physical examination of all persons at yearly intervals with correction of defects that may be found. From this movement fruit is being borne in a gradual extension of the average life span as well as improvement in the sturdiness of the citizenry. This program, without doubt, will yield more far reaching benefits if intensified and carried to a larger number of people. The practitioner is doing a higher type of professional service as a result of this phase of his activities. Some doctors give special attention to the yearly physical examination and correction of defects, and "call up" their clientele, reminding them that only a year ago they were up for examination and that it is time for this to be done again. With such an arrangement the family doctor is able to keep his hands and eyes and mind on the physical progress of his people, and could do the immunizations against typhoid fever, smallpox, diphtheria, and other preventive work that he of right should do. (There were 1315 cases of typhoid, 810 under 20 years of age, highest incidence in July, and 1786 of diphtheria, 1443 in children under ten and highest incidence in August, reported

in 1929 with 197 and 162 deaths, respectively, from these causes.)

The condition set forth in the preceding paragraphs constitute in the mind of the writer some of the major problems confronting the medical profession in this state. The challenge: if these problems are to be met in the manner calculated to yield greatest results, the services of physicians, health officers, dentists, and nurses, with adequate training in their respective fields, together with hospitals carrying modern diagnostic and therapeutic equipment, should be in easy reach of every community.

THE ROLE OF THE GENERAL PRACTITIONER IN MODERN MEDICINE.*

W. H. ANDERSON, M. D.,
BOONEVILLE, MISS.

The progress of medicine for the last fifty years has been as swift as the eagle's flight. No one man has been able to keep step with it all. Much that was mysticism and guess work has been replaced by scientific discoveries. The last half century has been really the era of curative medicine. Now we are at the sunrise of a new day, that of preventive medicine and preventive surgery. Requirements for graduation in medicine have been raised time and again and the cost multiplied over and over. Specialties have been magnified by the medical schools until the profession has become top-heavy with specialists. The cities are pressed to the utmost limit with doctors, while the rural communities are starving for the benefits of modern medicine. Generally speaking, the specialist is underworked and overpaid, while the general practitioner is overworked and paid barely enough to keep soul and body together.

Heart disease heads the list for human casualties caused by illness. Prevention is the treatment of choice, and this must be done largely by the family physician. Cancer is another unconquered enemy that is successfully defying the medical profession, and ranks next in its toll of human life. Here the general practitioner must be aroused to the importance of early diagnosis. He must have the facilities and the time to make the examinations, and his observations must be recorded, if we are to master this disease. And great is the field of preventive surgery, especially as it relates to good obstetrics. Here the public depends largely upon the general man for more efficient service in a great and open field. Even yet the majority of people become ill and die of the common, ordinary, every-day diseases and we cannot overestimate the vigilance and efficiency of the general practitioner. Preventive surgery and preventive medicine are the eastern star that beckons us to higher and nobler attainments in the service of our profession and offers the greatest returns socially and economically to us and to our clientele. Preventive medicine is not the work of the public health officer alone; its challenge reaches to every practitioner. Social ethics and better eugenics constitute a field with multiplied opportunities open to the medical profession where the advice of the general practitioner is of the greatest value.

The influential leaders in medical thought have underestimated the value and the importance of the general practitioner. But, say what you will and think what you may, he is the corner stone of the profession. There has been a tendency to discard as "obsolete" the man who has been in practice for twenty-five years. It is true that there is much that he does not know in laboratory diagnosis, intravenous therapy and some of the latest anesthetics. But he has a basis, he has the foundation upon which the newer knowledge can be built easily. He knows the clinical symptoms

*Chairman's Address. Read before the Section on Medicine at the Sixty-fourth Annual Session of the Mississippi State Medical Association, Jackson, May 12, 1931.

from experience, if not from study. He has a working knowledge of the human organism, how it reacts against disease, and how it behaves under stress and strain; he has learned in the school of experience. It is true that there must be some adjustments to aid the practitioner and to enable him to better serve the public.

The general practitioner in medicine or surgery must be just as much a specialist in his line of work, within its limits, as the eye, nose and throat men. His scope of work requires him to be more broadly educated and more versatile in general than the average specialist. The medical school should put in a course especially suited to the needs of the man who does general practice, the man who has been in practice for several years, as well as for the student who is beginning his course in medicine. The short cut to a medical diploma to supply physicians to the rural communities will not work. It is foolish to think of lowering the standards or taking short cuts. Deans of medical schools must be more careful in selecting their students. Scholarship is good and of great importance, but a professional mind, a medical soul, and a missionary heart are of still greater importance. Never has the challenge been so gigantic, nor the opportunities so great as at this time.

The general practitioner of medicine and surgery is the backbone of the profession, but he must have special training in his field, technical training for the treatment he is to administer, and native endowment in addition to this training, to enable him to administer his clearing house duties as he should. The general man must be able to tell when a real specialist is needed in the case. He must be big enough of heart to turn the case over cheerfully when this is evident. He must have ability to put all the facts and findings together and to interpret them in their proper relations to a diseased body and a mind disturbed socially and economically. The practitioner must

also study to prove himself a good business man.

To bring modern medicine to the masses at a cost at which they may utilize it is our greatest social and economical problem. We must make our profit on volume of business rather than a high price to the individual. In order to do this, the patient must come to the practitioner. In a well-ordered clinic or a small hospital he can see a dozen times as many patients perhaps, he can have trained help, the patient will come before he is gravely ill. It is better for a dollar-a-day man to spend his time on the road than it is for a man who has spent \$10,000 and ten years of hard work preparing to practice medicine. It is impossible now to apply modern medicine in many instances out in the homes of the rural community. Hence, our greatest means in enabling the practitioner to serve his clientele better and at less cost is the community hospital and the well-ordered clinic. If our State will take care of the actual charity in the territory of the small hospital, it can live and serve. The community hospital will encourage co-operative medicine, promote preventive medicine and the yearly examination and act as a post-graduate school for the medical profession. In this way the standard of efficiency of the general man might be raised to a much higher degree and at the same time bring modern medicine to the rural community at a reasonable cost. It is time for the man out at the cross roads and down by the mill to have some consideration at the hands of his State. He has been paying taxes all these years. A charity hospital 200 miles away is no good to him. He needs and must have the service in his own or adjoining county. It is time to "render unto Caesar the things that are Caesar's." It is time to do honor to the general practitioner and to remunerate him commensurate with the service he is rendering.

In the meantime, let us keep up the morale. Let us not be weary during this transitional period from an already great

to a still greater service. You have, you are, you will meet the demands. Your reward must come. As long as matter goes undestroyed service must be paid for in some form. Let us raise the standard as high as we can under the circumstances. Let us be efficient to the limit of our ability. Let us diagnose and treat the common everyday diseases in the very best way we can. Let us not count anyone thing common or of minor importance in this great profession of ours. Let us meet the challenge of a needy people. Let us carry on with dignity and pride and perseverance. The general practitioner is the corner stone of the greatest profession on earth. In the words of the poet, "Let us walk with the man in the road" and "Let us keep on keepin' on." Let us keep in mind the words of Walter Gresham and also heed the words of the unknown poet.

LET ME WALK WITH THE MEN IN THE ROAD.

'Tis only a half truth the poet has sung
Of the "house by the side of the way";
Our Master had neither a house nor a home,
But He walked with the crowd by day.
And I think, when I read of the poet's desire,
That a house by the road would be good;
But service is found in its tenderest form
When we walk with the crowd in the road.

So I say, let me walk with the men in the road,
Let me seek out the burdens that crush,
Let me speak a kind word of good cheer to the weak
Who are falling behind in the rush.
There are wounds to be healed, there are breaks we must mend,
There's a cup of cold water to give;
And the man in the road by the side of his friend
Is the man who has learned to live.

Then tell me no more of the house by the road.
There is only one place I can live—
It's there with the men who are toiling along,
Who are needing the cheer I can give.
It is pleasant to live in the house by the way
And be a friend, as the poet has said;
But the Master is bidding us, "Bear ye their load,
For your rest waiteth yonder ahead."

I could not remain in the house by the road
And watch as the toilers go on,
Their faces beclouded with pain and with sin,
So burdened, their strength nearly gone.
I'll go to their side, I'll speak in good cheer,
I'll help them to carry their load;
And I'll smile at the man in the house by the way,
As I walk with the crowd in the road.

Out there in the road that goes by the house,
Where the poet is singing his song,
I'll walk and I'll work midst the heat of the day,
And I'll help falling brothers along—
Too busy to live in the house by the way,
Too happy for such an abode.
And my heart sings its praise to the Master of all,
Who is helping me serve in the road.

—Walter J. Gresham.

KEEP ON KEEPIN' ON.

If the day looks kinder gloomy,
An' the chances kinder slim;
If the situations puzzlin'
An' the prospects awful grim,
An' perplexities keep pressin'
Till all hope is nearly gone—
Jest bristle up and grit yer teeth
An' keep on keepin' on!

CHAULMOOGRA OIL IN THE TREATMENT OF ARTHRITIS.

A PRELIMINARY REPORT.*

PAUL A. McILHENNY, M. D.,†

NEW ORLEANS.

In 1926⁽¹⁾ I announced the observation that the secondary infectuous type of arthritis is not encountered in leprosy. Occupying the position of Orthopedic Consultant on the staff of the U. S. Marine Hospital, No. 66, the National Leprosarium at Carville, Louisiana, for a number of years I have been able to observe these cases, and the fact was so impressed upon me that I sought for some reason to explain why these unfortunates did not develop such conditions. I then arrived at the conclusion that, since leprosy is attended with rather marked metabolic disturbances, the disease itself could not be preventing an

*Read before the Orleans Parish Medical Society, New Orleans, June 22, 1931.

†From the Department of Orthopedics, Tulane University, and the Charity Hospital of Louisiana.

arthritis, and I then conceived the theory that possibly the treatment of leprosy might be the reason. I consulted with my associates on the staff of the hospital, and with visiting physicians connected with other leprasaria, and without exception my observation was sustained in that none of these gentlemen could recall having seen arthritis of the types considered in lepers. After two more years of investigating I concluded that chaulmoogra oil was responsible for the prevention of this widespread disease.

It is an established fact that, in the test tube, chaulmoogra oil has powerful bacteriacidal properties;⁽²⁾ it is also an established fact that it has no deleterious effect on any organ of the body when given in medicinal doses; it does, however, produce gastric irritation when given in large doses by mouth, and a local myositis when excessive amounts are injected intramuscularly. With these facts in mind I determined to try this drug in the treatment of the atrophic, hypertrophic and the mixed, combined or altro-hypertrophic types of arthritis. No other types of arthritis have been treated with it, nor will any other be considered in this announcement. The method used consists of bi-weekly intramuscular injections of from 3 to 5 c.c. of the crude oil, and from 0.3-1.6 c.c. in enteric capsules by mouth at meal times. The formula for the injection material is that of Dr. F. A. Johansen, of the National Leprasarium at Carville,⁽³⁾ and consists of 0.2 gm. of benzocaine, 10 c.c. of olive oil, and 90 c.c. of crude oil. Twenty-four to forty-eight hours are required for the preparation of this formula. The regions selected for injections are the deltoid and buttock. Five c.c. may be injected into the deltoid alternating with 8 c.c. into the buttock. Five c.c. is the amount generally used both in the deltoid and buttock though a larger amount may be injected if the patient's tolerance allows; the mixture is given at body temperature. After injection a slight local reaction producing moderate pain is experienced but this passes off within

24 to 48 hours when the oil has been completely absorbed. The injection is best made through a two-inch spinal needle, and care should be exercised that the oil is not injected into the fascial planes or periosteum as a sterile abscess may develop if these areas are invaded.

The use of the drug by me in the treatment of arthritis is purely empirical, and no attempt will be made at this time to explain why it is beneficial in arthritic cases. Mention might be made of the active principles which are two, namely, hydrocarpic acid and chaulmoogic acid, these are unsaturated acids,⁽⁴⁾ also that chaulmoogra oil stimulates leucocytosis.⁽⁵⁾ Urinalysis shows acetone but this is believed to be a split up acid rather than true acetone.

The use of the drug for the treatment of arthritis was first started by me in February of 1930, and up to the present 39 patients have been discharged from the hospital; 29 of these were from my own service, and 10 from other services. All of the patients were in bad condition demanding hospitalization and most of them were confined to bed. No selection of cases was made other than that they were of the atrophic, hypertrophic, or the mixed type and diagnosis was confirmed in most cases by roentgen-ray. All foci of infection were investigated and cleared upon when possible especially chronic constipation. No attention was paid to special diet. Without exception every patient has shown improvement; many complete relief of symptoms, and restoration of function; others arrestment of the disease and reduction of deformity. No patient has been readmitted to the hospital with a return of the condition. Thirty-nine patients have been discharged, and at present there are nine being treated in my service alone, and all are improving. The procedure is therefore offered as the one method that has given me better results in the treatment of these conditions than all others.

Improvement may be expected during the second week of treatment; the average patient becomes symptom free in about eight weeks.

The following cases were of the advanced type and are therefore cited:

CASE REPORTS.

Case 1. Mrs. R. H., white, aged 40 years, admitted June 16, 1930, with combined or mixed type. Five years previous she began having pains in hands, knees, and ankles, later her shoulders, elbows and wrists became involved. When admitted she complained of pains in fingers and wrists, elbows, shoulders and knees, with increased fluid in wrists and knees; fingers showed fusiform enlargement, knees were flexed. Had been treated with various anti-arthritic measures before coming to hospital, but had experienced no relief. Questionable teeth and tonsils had been removed; constipated. Roentgenogram showed atrophic and hypertrophic arthritis. She was given bi-weekly intramuscular injections of 5 c.c. and 1.6 c.c. by mouth t.i.d. of chaulmoogra oil. Discharged on December 17, 1930 symptom free.

Case 2. Mrs. M. J., white, aged 33 years, admitted February 8, 1931, with atrophic type. Hands and fingers swollen and tender, fingers showed ulnar deviation; interosseal and lumbrical atrophy; ankles, knees, elbows and shoulders also involved. Teeth had been removed; tonsils negative; constipated. Was treated with chaulmoogra oil. Discharged May 13, 1931, symptom free.

Case 3. E. S., colored male, aged 38 years. Porter. Admitted November 21, 1930. Diagnosis, atrophic arthritis, chronic myocarditis. Complained of pain and stiffness in all joints. Similar attack three years previous to present illness. Examination showed swelling and pain in fingers, wrists, elbows, ankles and knees, shoulders and hips also involved; knees and fingers flexed; could not flex or extend fingers; no edema, Wassermann negative. Constipated. Treatment: Bi-weekly injections, as well as by mouth. Discharged February 12, 1931, with normal motions and no pain. Is back at work.

Case 4. J. R., white, male, aged 45 years, admitted February 27, 1931, with hypertrophic arthritis of lumbo-sacral, sacro-iliac and hand and wrist. Constipated; teeth and tonsils had already had attention; had had pain in back and left leg for four years; unable to extend leg or bend over, forced to lie on his side. Wassermann negative. Was treated with iodo-cincophen for five weeks without relief. After five injections of chaulmoogra oil and 1.6 c.c. t.i.d. by mouth he was able to be up, walking around. Was discharged Mar-

20, 1931, free of pain, and with almost normal motions; returned to work.

Case 5. Miss R. S., white, aged 29 years, admitted January 9, 1930, with advanced atrophic arthritis. Fingers, hands, elbows, shoulders, jaws, hips, knees, ankles and toes involved; fingers and toes showed flexion contraction; fibro-chondromata on dorsum of meta-carpal, and under elbow joints. Had been in my service for the same condition previously, and treated with amiodoxyl, benzoate, iodo-cincophen, guaiacol carbonate and activin without relief; teeth and tonsils had been removed. Was put on chaulmoogra oil February 4, 1930, and still under treatment. This is the most persistent case in this series. She has improved remarkably, and from being unable to walk or use her hands or arms she is now up and about with no pain except when walking, when she has some discomfort in her ankles, this is thought to be due to the marked deformity of her ankles and feet rather than to the disease. The chondromata have reduced in size and are not sensitive; all points are normal and size and appearance except the fingers and toes. Continue! improvement and final arrestment is expected in this case.

I am rather inclined to the opinion that treatment should be continued for some weeks after patients have become symptom free.

REFERENCES.

1. McIlhenny. Orthopedic Problems in Leprosy. Jour. Am. Med. Assn., 87:1888, 1926.
2. Pharmacotherapy. Solomon Solis-Cohen. 1928 edition.
3. Johansen. F. A. U. S. Public Health Reports. December 9, 1927. Reprint No. 1193.
4. Potter's Therapeutics-Materia Medica and Pharmacy. 15th edition.
5. Wilcox. Materia Medica and Therapeutics. 12th edition.

DISCUSSION.

Dr. E. D. Fenner (New Orleans): I regret that, in opening the discussion, I am not able to bring any very positive testimony as to the efficacy of this newest specific for chronic arthritis. My personal experience in the use of chaulmoogra oil began only a few weeks ago, and the number of cases upon whom I have been able to apply it is a small one. None of them, moreover, have been under treatment long enough to either confirm the experiences related to the essayist, or to negate them.

I confess that I am not quite so optimistic in regard to the results to be expected from the treatment of chronic atrophic, hypertrophic, and

mixed arthritis with chaulmoogra oil, as the essayist probably is. It is a universal experience that the inventor of an operation, or the discoverer of a cure, is likely to report better results than his colleagues do. Chronic arthritis has had more cures discovered for it than any other disease in the world, but most of them have been discarded, while chronic arthritis continues to torment and cripple thousands. A final verdict upon the value of chaulmoogra oil as a cure for chronic arthritis must, therefore, await a wider experience. But whether other men find it as efficacious as Dr. McIlhenny has or not, this is an exceedingly interesting contribution, because any one who discovers a remedy that will benefit even a fourth of the cases of chronic arthritis will have done a great deal for suffering humanity.

I congratulate the essayist upon his original investigation, and I sincerely hope that experience will lead me and many others to a like confidence in its curative power.

Dr. Youman (New Orleans): I have not had much experience in the treatment of arthritis with chaulmoogra oil except for a few cases while on an orthopedic service.

There were two cases of particular interest. One of the cases had bilateral hydrarthrosis on whom we had tried most of the accepted methods of treatment of arthritis, without result. I had heard Dr. McIlhenny praising chaulmoogra oil and decided to try it. I gave it to the patient as Dr. McIlhenny has outlined and, after six weeks of treatment, we sent him out of the hospital symptom free. I have followed his case up and he has remained symptom free since. The second case was a white female sixty-five years old who had been in the hospital for six months. We had been treating her by different methods without result, so we used chaulmoogra oil on her and after eight weeks of treatment sent her home. I have not been able to follow this case up so I don't know if the symptoms have returned or not.

Dr. Isbel (New Orleans): I have been fortunate enough to work with Dr. McIlhenny for two months on his service. During that time we had about eleven cases we were treating. We were unable to obtain the chaulmoogra oil for about a period of ten days. During that time the patients could not receive their injections. There were two which had the hypertrophic type with a great deal of fluid in the joints and edema about the joints. During the period in which there was no chaulmoogra oil, they developed increased swelling and edema about the joints with increased pain, which was not reduced by salicylate or iodo-cincophen. When we got the new supply of chaulmoogra oil and were able to continue injections, the swelling

went back to the point to which we had reduced it before the chaulmoogra oil gave out, and the symptoms receded.

We had another case who came in with minimum amount of disability, a patient we were unable to keep in the hospital. He remained in the city about seven weeks to get his chaulmoogra oil, coming to our orthopedic clinic to get his injections twice a week. When he left, after six weeks, he was able to use his hands and go back to work.

Dr. Davis (New Orleans): When I took over Dr. McIlhenny's orthopedic service at Charity Hospital as his interne, I had heard a lot about oxy-iodide compound and how good it was in the treatment of certain types of arthritis. A case of hypertrophic arthritis of the lower lumbar spines was admitted to the service, so I immediately put him on this preparation. When Dr. McIlhenny saw the case, he allowed me to continue the same treatment. After five weeks of extensive iodo-cincophin therapy, and a lot of persuasion toward improvement on my part, the patient was very little better, if any.

He was then put on the usual chaulmoogra oil treatment and I'll have to admit that, after two weeks of this, he showed definite signs of improvement.

I handled with Dr. McIlhenny two of the most serious cases he has mentioned and I might say that, had it not been for a definite set-back due to vaccinia from smallpox vaccination on the part of one, she would have improved more steadily. The treatment was discontinued at this time.

Throughout the whole service, I saw more of the cases than Dr. McIlhenny did, and I think I noticed even more improvement in the patients than he did, so I am ready to vouch for everything he has said.

Dr. Moseley (New Orleans): I am interested in chaulmoogra oil. I am interested in it not because I am working with it, or have any immediate knowledge of it, but because of the contribution it seems to have made to medical science.

From my casual reading of Roger Adams' work on the determination of what might be called the active principles of chaulmoogra oil, I am rather interested to know whether the drug as reported by Dr. McIlhenny is the original chaulmoogra oil, or if it may be one of the newer synthesized drugs emanating from the researches of Roger Adams of the University of Illinois; whether the oil you have used has been purified from all unnecessary and inert, though sometimes active, impurities, or whether it is the newly synthesized product which you have found ex-

tremely efficacious in the treatments described? Thank you.

Dr. Edith Loeber Ballard (New Orleans): Just recently I came across two cases of arthritis deformans. One was a man who had been incapacitated for twenty-five years, and the other, a boy nineteen years of age, just starting with the disease, showing what seems to be an hereditary tendency. Is it possible to send these two cases to Dr. McIlhenny for assistance and some further treatment? If you would like them, you may have them.

Dr. Boudreau (New Orleans): I was on Dr. McIlhenny's service also for two months during which time eight cases were treated by the method discussed. Four of them were cases that were already being treated when I came on the service, and the other four I started treatment on. These last four were discharged, two at the end of four weeks and two at the end of six weeks. They were all much improved and able to carry on their work. The other four cases were far advanced arthritis but showed some improvement during the two months of treatment.

Dr. Joachim (New Orleans): I feel very much like a liason doctor, bringing before this body a message on chaulmoogra oil.

At a recent meeting of the ear, nose and throat association, one of our prominent eye doctors assured us that chaulmoogra oil, sprayed in the nose, was of benefit in eye and nasal pathologic conditions of chronic inflammatory nature. This is of great importance if based on accurate observation.

Chaulmoogra oil in these conditions is recommended to be used in dilution with oil derived from the sunflower seed.

Chaulmoogra oil is coming into greater use than ever before and, if these reports turn out to be based on facts, it will be an important addition to our therapeutic resources.

Dr. T. J. Dimitry (New Orleans): It was I who read the paper on the effect of chaulmoogra oil in eye and nose conditions at the Eye, Ear, Nose and Throat Club some months back, as recited by the doctor who has just spoken.

I have been very much interested in this therapeutic agent and I have been hunting for an explanation of its beneficial effect. My whole work is still experimental and my contribution merely recited facts.

I compliment Dr. McIlhenny in his work and I feel certain that he is accomplishing a good in the condition recited. I feel that before very long the "why" will be explained, but we must be watch-

ful in reciting the many beneficial effects and control rigidly any statements. The latter is the reason for my delay in publishing more upon the subject.

Dr. Webb (New Orleans): It would be futile on my part to attempt to add anything to what Dr. McIlhenny has said, but I am on his service at the present time and have been associated with him for six weeks. We have treated sixteen patients since I have been associated with Dr. McIlhenny and four of these patients remain in the hospital now.

There are some who are coming from Lockport and Thibodaux and other towns over the state who have been materially benefited and so much so that they come regularly twice a week for their injections. They have both the hypertrophic and atrophic type. Some could hardly walk when they came in. All of them have been materially benefited. However, some of the results are not very good but we see some improvement.

One thing has not been brought out. You have to be very careful in giving these injections because you sometimes get abscesses. We have had a few of these. It seems to be very irritating, probably due to the fault of the man gives it and probably due to the olive oil that we have used that was not the purest type. I find most of the cases are greatly benefited with chaulmoogra oil.

Dr. DeMotte (New Orleans): We are using the chaulmoogra oil treatment in the clinic as well as on the wards. Patients, of necessity, have to be taken out of the hospital before they are cured, and sent to the clinics over a long period of time, and we find we can use the chaulmoogra oil there and adequately follow up the cases. We have been using it for the past month and of the few cases that have come into our service, there are two which have shown very definite improvement. These two were on salicylates, but were taken off the latter and chaulmoogra oil used alone intramuscularly and orally.

Two arthritis cases in the hospital in our service seem to have presented more or less of a therapeutic problem, both of the hypertrophic type. One had salicylates on the outside and salicylates in the hospital for two weeks without much relief of the joint symptoms. We gave chaulmoogra oil orally and intramuscularly and really a remarkable transformation resulted. He became practically another man. He helped around the wards and had notably a better disposition. I have not heard from him since his discharge. Another case of interest was a man that came in about the same time. While he showed definite improvement in the hospital, on being discharged about three weeks ago, he has now returned because ~~he~~ ^{he} has the same

symptoms with which he came in initially. He did not have at home the benefit of chaulmoogra injections. After being in the ward for a week and having two injections, he is feeling much better. Both men reminded me when it was time for their injections—in spite of the discomfort that follows them.

Dr. McIlhenny (closing): I have very little to add to what I mentioned in my paper.

In reply to Dr. Moseley's question about crude oil, this is, so far as we know, the crude oil as put out by Parke, Davis and other drug firms or wholesale manufacturers. It is the crude oil that is being used at the National Leprosarium. It is not hydrocarbate or the chaulmoogra, or any of the ethyl esters, it is pure, crude oil, mixed with olive oil and benzocaine, filtered and sterilized.

It might be of interest to state that in discussing the question of the value of chaulmoogra or the hydrocarbate or ethyl esters with Major Denny, Commandant at Carville, in connection with my experiment in arthritis with crude oil, he said that he was not at all convinced that there was any value in the ethyl esters as compared to crude oil. He feared when reducing to the ethyl esters they lost a great deal that was possibly beneficial in the crude oil, so he preferred the crude oil in the treatment of leprosy to the other preparations.

I am rather inclined to his idea. Since crude oil, if given in proper doses, does not cause any great amount of pain, since, if an abscess forms, it is a sterile abscess which, when evacuated, gives no further trouble, since it has not any deleterious action on any organ of the body, since patients bear it very well, since they do respond to the treatment and, if nothing more, are relieved of their pain, I am rather inclined to take his advice and use a crude oil.

I have had no experience with the refined product.

In reply to Dr. Loeber-Ballard's question about referring cases she has mentioned to our service, from the description of the first case, I judge, possibly, we might hold out some hope to that individual. Although we may not expect to get restoration of function in joints already affected, we could expect reduction in symptoms and relief of pain.

With reference to the second case, where arthritis is already established but not so far advanced, I think we could restore considerable function.

In the third case, where arthritis has just begun, we might be able to arrest it absolutely.

I am possibly leaning too much to the optimistic side but I have not yet seen a case that has not improved, and have not had a case returned to the hospital for a second course of treatment.

Through the courtesy of the Parke, Davis people we will soon be able to get this drug put up in enteric capsules, and they have advised me a supply will shortly be coming so I can give it here at the hospital. The preparation has to be put up rather carefully and it requires some forty-eight hours to put it through the necessary processes. If the demand for it warrants, I believe we can arrange to have it put up in sterile containers so it can be available almost anywhere.

UNDULANT FEVER—A PUBLIC HEALTH PROBLEM.*

P. A. KIBBE, M. D.

NEW ORLEANS

A complete description of undulant fever in all its phases is not at this writing possible. However, as it belongs in the domain of public health, the knowledge we have is important to those who are even remotely concerned with the education of the people in the means of health protection.

In the medical history of fevers, we find reference to the "protracted" fevers of the time of Hippocrates. Whether it was this type we have no definite evidence. But in the eighteenth and early nineteenth centuries many records tell of the fever occurring on the Island of Malta. In 1859 Marston gave a full and accurate account of "Mediterranean remittent" or "gastric remittent fever." Thus between 1860 and 1870 undulant fever became a distinct clinical entity. In 1887, Surgeon Bruce demonstrated the etiological agent of the infection. He cultivated the causal organism and reproduced the disease in experimental animals. It was about this time—1904-1917—a commission was appointed on which were representatives of the Army, the Navy and the Civil Government of Malta. The detailed and laborious studies of the Commission determined the nature of the infective organism. They demonstrated that the "micrococcus leaves the body mainly through the

*Read before the Louisiana State Medical Society, New Orleans, April 14-16, 1931.

urine; that goat milk agglutinates the organism." Also that the "germ was isolated from such goats although the organism did not seem to affect injuriously such animals, even when they lived in the blood stream and were secreted in the milk." The source of the discovery was almost an accident. Small laboratory animals being unavailable, six goats were purchased for experimental purposes. That the animals were naturally infected was soon proved. It was then a simple matter to show that goats were the common source of infection.

In this country in 1904, Craig established the diagnosis of a case in a nurse who had never been out of the United States. He then suggested that many cases supposedly atypical typhoid were really undulant fever. In Arizona, a goat raising area, in 1922, there was an epidemic which gave opportunity for study and experiments.

As far back as 1896 Bang discovered the casual organism *Bacillus abortus*. He did not suspect the relation between the organism he had discovered and that of Bruce. A comparison followed and the etiological agent of contagious abortion in cows was determined. Miss Evans made an important contribution when she proved that morphologically, culturally, bio-chemically and by simple agglutination test, the *Micrococcus melitensis* and *Bacillus abortus* were indistinguishable.

It was then accepted that Malta or undulant fever may be caused by the *Brucella melitensis* of goats, the *Brucella Bang* of cattle and the *Brucella Traum* of pigs.

There are three varieties of the *melitensis* and two distinct types of the variety—*abortus*—bovine and porcine.

The disease appears in sub tropical and temperate climates. It is known to exist in Russia, Italy, France, East and South Africa, North and South America and in the West Indies. Infectious abortion of cattle also occurs widely in all stock raising countries.

In the calendar year of 1929, 975 cases were officially reported to the U. S. P. H. Service with forty-one deaths. The 1929 distribution was seasonal the number of cases increasing to September after which there was a sharp drop.

The disease had been made reportable in many states. In Louisiana it was added to the reportable list in March, 1929. Seventeen (17) cases were reported that year and twenty (20) in 1930 with two (2) deaths each in 1929, 1930, directly charged to this disease.

The large number of cases in the U. S. focused attention upon the apparent cause and investigations to show the possible virulence of the different varieties were given a new impetus. One of the most thorough and detailed of these was conducted in Porto Rico. The records and results were published in the Porto Rico Journal of Public Health and Tropical Medicine in the September issue of 1930.

The range of experiments is of interest. Blood serum was examined for *abortus* from 10 per cent of the entire number of animals. The seventy-nine dairies supplying milk to San Juan were visited. Of 528 samples, 312 were positive, a total of 58 per cent positives. All herds examined except six, had reactors among the samples taken. It may be well to add here, data gathered in Illinois, where tests were given of more than 5000 cattle distributed over 35 counties, show that one of every five animals is a reactor to the agglutination tests.

Vaccination against bovine contagious abortion was tried. Living and dead cultures were used. The conclusion was "vaccination with living cultures is superior to the dead culture injection and that it reduces the number of abortions occurring in infected herds." Further study is recommended under competent research specialists.

Transmission experiments were tried on human subjects and animals. From these

"it seemed infection took place more readily through abraded skin than through the gastro-intestinal tract." Infection through unabraded skin was not accomplished but further attempts with larger doses should be tried.

Of fifty cases inoculated by various methods only ten contracted the infection—six through abraded skin, four through the gastro-intestinal canal. Of the six infected through the skin, three were inoculated with bovine, one with melitensis and two with porcine strains. The significant fact is a single dose was enough to produce in these cases infection. Of the four inoculated through the intestinal tract porcine strains were used with two, melitensis with one and one with a bovine strain. Two or more doses of the porcine were required and seven consecutive doses of the bovine to produce a mild case with the bovine strain. A single dose only produced infection with the melitensis strain. "We are therefore under the impression that only the most virulent bovine strains, when ingested in sufficient doses are of danger to man." Smaller doses through abraded skin will cause infection.

This result accounts for the number of cases that occur among farmers, laboratory workers, veterinarians and packing house employees. Persons engaged in these occupations make up about 40 per cent of the cases in the United States.

Undulant fever, in severity and duration of symptoms, may be divided into four types:

1. Fatal.
2. Severe or moderately severe.
3. Mild.
4. Ambulatory—the types are also given as the malignant, the undulatory and the intermittent.

The symptoms—generally—of each type is as follows:

Intermittent: Onset insidious, afternoon weariness; general aching; some headache, a distaste for food, chilliness in the early evening and moderate insomnia and sometimes a suspicion of fever. Backache, stiffness or pain in the neck and joints, constipation and loss of weight—later, night sweats and repeated rigors. With mild infection, the patient may be up in the morning but glad to rest in the afternoon.

Ambulatory: All symptoms of the intermittent type, though mild in degree—the usual symptoms frequently the only one being weakness or lack of endurance—temperature normal in the forenoon, rarely 101° in the evening.

Undulatory: Distinguishing characteristic, occurrence of relapses—equal in severity the milder and moderately severe intermittent form.

Malignant: Sudden onset, high temperature with an extreme hyperpyrexia before death, great prostration, severe headache and backache, marked anorexia, and usually true rigors and constipation, delirium and coma.

Intermittent type duration—six weeks to four months—sometimes prolonged—infection terminates fatally.

Ambulatory—duration—varies from two weeks to several months, often more than one month and less than four.

Undulatory—duration—uncertain.

Malignant—duration—about three weeks.

Undulant fever may present the clinical manifestations of typhoid fever, tuberculosis, bronchopneumonia, meningitis, cystitis, rheumatism and various surgical conditions.

Although there is a general optimism concerning bovine infection, it is gratifying that the eradication of this specific organism is a probability in the near future. Since January 1, 1931, in Louisiana, more than 65,972 cattle have been tested for

tuberculosis. The abortus test has also been given in some instances. Few cattle have reacted to either. By the middle of July, 1932, the work will be completed and our people will be largely protected from these milk-borne disease.

There are wide differences of opinion as to the causative agent of the disease in our own country. In 1929 King and Caldwell expressed the opinion "that raw milk infected with *Brucella abortus* produces agglutin and causes undulant fever in man."

In a splendid symposium on this subject at the 1929 meeting of the American Public Health Association it was stated "our study of the disease shows clearly that *B. abortus* is only slightly pathogenic for man and it must be that only most virulent strains in milk are of danger to him." (Carpenter and King.)

It is thought by some—notably Orr and Huddleston—who have studied the epidemiological aspect in Michigan, that "among the human population susceptibility to infection *B. abortus*, bovine type is very low and that human infection is determined by some factors yet undetermined." It is this element which makes a complete resume of the subject impossible. But we realize the extent of the infection; we know something of the factors; we know the symptoms; we are warned diagnosis is not easy—for these reasons it is wise and pertinent to keep undulant fever in mind.

Study of improved methods of diagnosis and treatment; investigations of the several yet undetermined factors which appear for example in many places where there is a high percentage of cattle infection there is a low human incidence of the disease and complete clinical and epidemiological records are specially pertinent and will be helpful in pointing the way toward control and final eradication of undulant fever—now unquestionably a public health problem.

DISCUSSION.

Dr. J. M. Bodenheimer (Shreveport): Dr. Sandige has asked me to be a pinch-hitter this morning for the simple reason that I have had a little experience in the treatment of undulant fever. There have been four cases reported in Caddo Parish. Three have been in my private practice, the fourth I have seen in consultation. Of the different types of cases, we have seen the acute fulminating type and we have seen the ambulatory type, and the other cases have ranged between the two.

One of my reasons for coming down here to this meeting was to find out how to cure undulant fever. I expected Dr. Kibbe to tell us something along this line, and I hope some of those who will discuss this disease, following me, will tell us how to cure the disease. I used mercurochrome intravenously in 1 per cent solution, and the patients reacted very favorably to this treatment in three of the cases.

The fourth case, which I now have under treatment, has been sick for something like ten weeks, and she is still running a temperature and is still in bed, for the simple reason that I don't know what else to do with her. We tried the mercurochrome treatment without any effect. I read in Clendening's latest edition that his friend Fred Angle had a vaccine with which he had cured twenty cases, and so I sent up to Kansas City and got some of this vaccine and I gave this lady a dose of it. After two weeks' time she still swears it was meant for a cow and not for her. The reaction is tremendous. Dr. Angel says he gives four doses, four days in succession, but all I can say is that the fortitude of the people around Kansas City is much greater than the fortitude of those around Shreveport because the prostration was so severe it was impossible to induce the patient to take the second dose.

One of the things that impresses me very much about undulant fever of the ordinary type, is that the patient just has fever and is not sick. There are practically no diagnostic physical signs. This case that I still have under treatment and that I have watched very closely and have done a lot of laboratory work on, is apparently in as good health at the end of ten weeks as she was in the beginning of the treatment. About a week ago we made a routine blood examination and we found that her blood cells were 4,500,000, and hemoglobin was 80 per cent.

One of the curious things about this disease is that after all that length of time she doesn't seem to have anemia. I notice most writers on the subject say there is a mild form of anemia in these cases.

The symptoms of the disease that impress me are the profuse night sweats, insomnia, and loss of appetite. I say there are no physical signs—nothing that you can put your hands on. The symptoms are almost entirely subjective. This last case is a very intelligent woman and she watches her condition closely and keeps notes on it, and I have been able to learn a good deal from her case alone. I promised her when I came down here I was to bring something back to free her of the fever.

I notice that most of the textbooks and most of the writers (I say writers because there is very little in the textbooks) say that the disease will wear itself out. I doubt this very seriously. One of the first cases I treated had been under observation for seven years, and had been to bed at least three times under treatment for tuberculosis. That is one point I want to make. I think there are a lot of cases of these so-called cured cases of tuberculosis—these border line cases that go to bed for three months and then get up—that are really, if the investigation is carried out more fully, undulant fever cases. If you observe these cases carefully—at least it observed in these three or four cases that I have treated—from time to time you can hear a few rales scattered about throughout the lung, and with a little rise of temperature, if you are not thinking of undulant fever, you will certainly be suspicious of tuberculosis. Even if you have an roentgen-ray taken, it is a very poor roentgenologist who can't help a friend out and find a little spot if that friend has a case he hasn't been able to diagnose.

To sum up, I think there are a lot of cases of undulant fever scattered throughout Louisiana and other parts of the South, and other places for that matter, that have remained undiagnosed, and I think if we begin to study this disease more fully and know more about it we are going to report a great many more cases than we are reporting today. I know that right in my practice now I have several cases I haven't been able to prove, and I feel satisfied we will prove them eventually. We haven't reported any of these cases as undulant fever until the State Board of Health pronounced them undulant fever. We have gone further and sent the blood to the Hygienic Laboratory at Washington for confirmation. When we get a slight agglutination in our private laboratory we are not going to call it undulant fever. As I said before, I believe there are going to be many more cases diagnosed as we learn about the disease.

Dr. M. D. Hargrove (Shreveport): I have nothing new to add to the knowledge of undulant fever but wish to report two rather interesting cases. One, a lady in Shreveport, who last summer made a trip into old Mexico, staying about three

days, but during that time used goat's milk. She came home and in about two or three week's developed temperature. We thought it was malaria or typhoid and everything else before it ever dawned on us that it was undulant fever. Her blood was positive for the melitensis. She got well without any treatment at all, practically speaking; nothing that did the fever any good.

Another patient with undulant fever of the abortus type had been running temperatures for about six or eight weeks, with slight remissions during that time. We treated him in a similar way, giving him nothing in particular. Finally, we decided that perhaps it would be well to try mercurochrome, and gave him one injection 10 c.c.— $\frac{1}{2}$ per cent. His temperature went to normal within twelve hours and remained normal.

I am not a very ardent believer in the value of mercurochrome, but it would seem that it had some effect in that particular case.

Dr. P. A. Kibbe (New Orleans): I want to thank the doctors for their discussion.

I am awfully sorry I can't give Dr. Bodenheimer a cure for undulant fever. I think the treatment is mostly symptomatic, and the duration is from two weeks to months.

TATTOOING—A BRIEF REVIEW OF ITS HISTORY, PATHOLOGY AND METHODS OF REMOVAL.

PAUL D. ABRAMSON, M. D.,
SHREVEPORT, LA.

Tattooing is the introduction of pigmentary matter into the skin, usually intentionally and in a definite design, but sometimes the result of accidental penetration as following a gun explosion at close range. Its interest to physicians is mainly two-fold: first, because of the occasional complications which are attendant upon the application of the tattoo, and secondly, not infrequently the problem of tattoo removal is presented to the physician. In addition, tattooing very occasionally finds a legitimate use for cosmetic purposes or after plastic operations. No doubt there would be many more opportunities to remove tattoo marks if the idea were not so prevalent among the profession as well as

among the laity that these marks are permanent and practically inefaceable, or only removable at the expense of an extensive and mutilating scar. As a matter of fact, most such marks wherever placed are amenable to removal with a minimum of scarring.

The word "tattoo" is in reality a Tahitian word "tatu," derived from "ta" meaning "mark." It was among these Polyne- sians that the art of tattooing reached some of its highest development. The exact origin of this peculiar onanistic custom is uncertain and lost in the dim realms of antiquity. According to Shie, however, its incipency was probably from the ancient custom of slashing oneself as a token of grief over the loss of a tribal chief or a loved one. Those marks into which ashes (carbon) were accidentally introduced were found to be more permanent than the others, and gradually the custom arose of deliberately placing pigmentary matter (at first carbon) into these cuts in order to make a permanent record, as it were, of some previous grief. Death always having been closely intermingled with religious beliefs, it was but a natural step for these markings to assume a religious significance. Gradually, instead of aimless slices about the body, the marks were made with some definite design or emblem, and thus we have the first definite tattoo as it is known today.

Although tattooing in its beginning probably had more of a religious significance than anything else, it is interesting to note that it was prohibited under ancient Mosaic Law (Leviticus XIX, 28). Soon the various peoples who were practicing tattooing found other uses for it. Painting the face and body as an aid in warfare, to frighten the adversary, dates back to remote antiquity. With the advent of tattooing, tattoo marks replaced part of this warlike array. Gradually certain marks became distinctive of tribes and even individuals. In New Zealand, for example, tattooing of the face or

"making the moko" as it was called, reached an extremely high degree of individuality and no two faces were alike; and these mokos served as a mark of distinguishing. On the purchase of land in New Zealand from the natives in 1815, the mokos of the chiefs were copied by them as their signatures to the deed.

As civilization has advanced, the practice of tattooing has fallen from one of dignity and significance, to one practiced by charlatans and street fakirs upon gullible and frequently irresponsible (at the time) individuals. Nowhere has it reached the peak of development which it did in the Islands of the southern Pacific (Polynesia) and Japan. In ancient days this practice was an honorable calling handed down from father to son, but now the "tattooer has lost his caste, and tattooing its art."

In modern times tattooing is usually seen in sea-faring people or in individuals who are tattooed under the influence of alcohol or in a spirit of bravado. Not only has the purpose and significance of these marks changed, but likewise have the methods. At first it was accomplished by the rubbing of pigment into open cuts; then there came the use of bodkins or chisels composed of bone or steel, and mallets: specimens of these have been found in the most ancient Egyptian tombs, these instruments usually being shaped like a little hoe. From these methods there gradually evolved the use of the needle, at first hand-operated, but later, in modern countries, electrically run.

Tattooing has been quite a widespread custom, having been found in practically every civilized and in most uncivilized countries, and presumably its origin has been similar in each instance. However, in certain places it is absent, either as the result of unfavorable legislation, or because of some superstition. Thus in Russia, according to Witthaus and Becker, until comparatively recent times, tattooing was found only in the prison camps

of Siberia because it was regarded as a mark of alliance with evil spirits. In Cleveland, the practice is prohibited by law; in Norfolk and in San Francisco it is subject to strict regulation. In other places, while the practice of tattooing is not subject to legislation, the removal of tattoo marks is construed as belonging to the realm of medical practice. In Japan, the practice has been prohibited for a number of years, and likewise the French government is said to prohibit it amongst its enlisted men. Tattooing has at times been used as a mark of identification, or for the branding of a criminal, this having been practiced in ancient Rome. At one time, a bill was almost passed by the French legislature to mark all new-born infants as a method of permanent identification.

The pigmentary substances (carbon, india ink, indigo, mercuric sulfide, red lead, etc.,) used in tattooing are introduced not only into the stratified layers of the epidermis, but into the superficial layers of the corium as well. Apparently the pigment is carried into the layers deeper in the corium by the action of phagocytes, and the pigment can at times be recovered from adjacent lymph nodes. Most of the colors, unless treated, are permanent. It is said, however, that professional tattooed people are re-tattooed every ten years in order to keep the colors bright. That they are quite permanent is evidenced by the fact that tattoo marks have been found on Egyptian mummies dating from 4000 B. C.

Tattooing has other uses than for purely ornamental purposes. In surgery it has been used to obscure certain facial blemishes or to color lips after cheiloplastic operations. It is said that on the West coast permanent rouge or lip stick is tattooed into the cheeks or lips as the case may be.

Complications arising from the application of tattoo marks are not nearly as frequently seen since the introduction of

modern methods of tattooing as they were formerly. The abandonment of the practice of rubbing saliva, urine, and what not, into the marks to make them "take"; and the preparation of the field before tattooing has been a large factor in the reduction of the morbidity. Some idea of just how much trouble used to result from this practice is indicated by the report of Bercheron's published in 1862. He reported 43 cases in which 8 deaths occurred as a direct result of tattooing; in 8 others, an amputation was necessary; in 25 others there was marked inflammation and infection. The types of infection resulting from tattooing have varied from a simple localized inflammation to septicemia and death and have included such infections as leprosy, tuberculosis and tetanus. In some localities, so many cases of syphilis have been transmitted by a tattooer that a tattoo mark has been considered as tantamount with a leuetic infection.

There have been innumerable methods advocated for the removal of tattoo marks, indicating, obviously, that no method is entirely satisfactory. Thus Cattani has enumerated thirteen distinct procedures designed for the effacement of these pigmentary deposits including simple blistering, the use of carbon dioxide snow, use of mother's milk, Finsen rays, digestion with papain, cold cautery, etc. However, of all these methods advocated there are only three types of de-tattooing that are of any great value, viz.: (1) surgical, (2) electrolytic and (3) chemical. Each method has its exponents and probably there is some value in each of these methods.

The surgical procedures consist largely of either excision of the entire tattoo mark, suturing the skin edges together, or skin grafting the area; or of removing the superficial layers as in making a Thiersch graft, thus exposing the pigment so that it can be picked out; or by dissecting up a flap containing the pigment, picking out the particles and sewing the flap back in place (harpooning method of Wederhakein). The

two latter are too time consuming to be of much practical value and the former has definite limitations depending upon extent and location of the tattoo.

Keller and Miller have been proponents of the electrolytic method: a 2-3 milliamperé galvanic current is used, the needle being connected with the negative pole, the softening action of the alkali on the tissues permitting removal of the pigment. Cattani found the method unsatisfactory, requiring numerous applications and uncertain in its results.

Numerous chemical methods have been advocated but of these there is one that is predominantly useful and, according to recent writers, is the best method of all for the routine removal of tattoo marks. This is the French tannic acid-silver nitrate method first advocated by Variot and modified by Shie. Since Shie's report in 1928, Korb (1929) has reported its use in 28 cases; he removed the design completely in 8 cases; in 12 only a small amount of deeply placed pigment remained, and in 8 there was incomplete removal. In all there was only a minimal amount of scarring and he was well pleased with the method.

Briefly, this method is as follows: the area to be de-tattooed is prepared as for a surgical operation. Then using 50 per cent tannic acid, the entire area is re-tattooed using either a regular tattoo needle, or a short piece of $\frac{3}{8}$ inch brass tubing into the slightly flattened end of which are soldered 10 fine needles; or simplest of all a cork may be used into one end of which is embedded 10-15 fine needles. This re-tattooing is done through a layer of tannic acid which is kept on the mark while the tattooing is in process, replenishing as necessary. When the operation is completed the entire area is closely covered with needle marks and the pigment is almost obliterated by a grayish tint and by numerous fine droplets of blood. The excess tannic acid is then removed from the surrounding area by washing in cold water. Sterile vaseline is then placed

on the skin around the tattoo marks as a protection to the normal skin during the next step. A stick of silver nitrate is then rubbed vigorously into the area thus marked out causing a heavy deposit of silver tannate in the corium. The vaseline is then removed and the area washed with cold water. A dressing of tannic acid or a simple sterile dressing is then applied. No anesthesia is required for this procedure as the patients do not object after a little tannic acid is tattooed in. The tattooing is carried to $\frac{1}{2}$ inch beyond the area of the original tattoo mark. In about 12 hours the area becomes hard and leathery and all protective dressings may be abandoned. In 14-16 days this black covering comes off, leaving a pinkish area which gradually becomes white, and resulting in scarring that is scarcely noticeable. This method is applicable for the removal of accidental (e. g. gunshot) as well as intentional tattooing. If necessary, the process may be repeated to remove any areas not completely de-tattooed.

SUMMARY AND CONCLUSIONS.

(1) Tattooing is an ancient custom which through the ages has changed both in significance and in methods of application.

(2) The pigmentary particles are, in part, introduced into the true skin, or corium; hence the usual indestructibility of the tattoo marks.

(3) Numerous methods of tattoo-removal have been recommended, of which there are three principal types, viz.: (a) surgical, (b) electrolytic and (c) chemical.

(4) Of all these various methods, the tannic acid-silver nitrate method, originated by Variot and modified by Shie, is probably the simplest and most effective method for general use.

BIBLIOGRAPHY.

- Cattani, P.: Tattoo marks and their removal, *Schwzrsch. Med. Wehnschr.*, 51:128, 1921.
Crocker, H. R.: *Diseases of skin*, P. Blakiston's Son & Co., 1905.

- Encyclopaedia Britannica, 11th edition, pp. 451-52.
- Korb, J. T.: The removal of tattoo marks, U. S. Naval Med. Bull., 27:674-77, 1929.
- Medical Record: Removal of tattoo marks, 99:923-24, 1921.
- Miller, C. C.: Electrolysis for the removal of tattoo marks, Med. Council, Phila., 13:374, 1908.
- Ibid: Excision of tattoo marks, Am. J. Surg., 39:121, 1925.
- Shie, M. D.: The art of tattooing and the science of tattoo removal, Hygiea, 632, 1927.
- Ibid: A study of tattooing and methods of its removal, J. A. M. A., 90:94-99, 1928.
- Stern, K.: The removal of tattoo marks, Munch. Med. Wehnschr., 60:2731, 1913.
- Van. Mesdag, S.: Destruction of tattoo marks, Nederlands Tijdschr voor Geneeskunde, 2:1289, 1919.
- Witthaus and Becker: Medical Jurisprudence and Toxicology, Wm. Wood & Co., 2nd edition.

ADDRESS OF WELCOME ON BEHALF OF THE LOCAL PROFESSION.*

EMMETT IRWIN, M. D.,†

NEW ORLEANS.

Mr. President:

Today, you the members of a great Medical Society, the representatives of a beloved and honored profession are the guests of the Orleans Parish Medical Society. It is an extreme pleasure and happy privilege for the members of the medical profession of New Orleans to be your host.

It is only fitting that you should assemble each second year in New Orleans for this City is one of the prized possessions of the people of Louisiana. It belongs to you as to us, in the same manner as the profession of New Orleans is a part of you and you a part of it,—all working in harmony and unison for the promotion of the health of the people.

The physician occupies a highly important position amongst his fellow citizens and they look to him with regard and respect. His place is quite unique in this life of strife and turmoil. It is to him his patient unfurls the sacred secrets of the

innermost recesses of the heart with a feeling somewhat of relief, and at the same time with a profound confidence their secrets shall not be revealed. Think, then, Gentlemen, of this lofty and exalted level to which our profession carries us and I wonder how often does one ask himself, "Do my actions as a man and in my profession justify such degree of respect and confidence?" However, if a man is honest with himself to the degree of a sincere and satisfied conscience, then he need not fear for his fellow men will have been likewise satisfied in the deeds which he has performed—when he has done his best, he has done well.

One of the great problems in Medicine today is the prevention of disease and the public must be made conscious of the extreme necessity of keeping their bodies in good physical condition through frequent periodic physical examinations. In this way early and incipient disease is detected when in a curable state rather than in the final and hopeless stage. For the past several years the Orleans Parish Medical Society has sponsored a Longer Life Week during which an educational program has been carried out with the idea of impressing upon the people of the community the necessity of a periodic health examination. Every well conducted business takes stock at least annually to determine the state of its affairs. Is not the business of life about the most important business with which any man is concerned? Then why not make a yearly audit of the body mechanism to determine the degree of wear and tear upon its various parts and organs? It is in this way we may expect to aid in prolonging life, a most desirable hope of each one of us. This plan is recommended to the various parish organizations.

It is not appalling to think approximately one person in every ten is subject to cancer? And of this number 20 per cent have cancer of the stomach. On a recent visit to one of the large Clinics of this country a prominent member of the Staff

*Read before the Louisiana State Medical Society, New Orleans, April 14, 1931.

†President, Orleans Parish Medical Society.

reported that of the patients coming there who suffered with cancer of the stomach 50 per cent were grossly evidently inoperable and were sent home. Of the remaining 50 per cent half again showed upon exploration the disease had already progressed to a degree where there was no possible aid from surgery. Therefore only 25 per cent of all cases of cancer of the stomach seen at that Clinic come in in an operable state. Why is this? They either do not consult their physician early enough, or the physician does not recognize the condition, or the patient has not followed the advice of his physician.

Unfortunately, there are more corner druggists prescribing medication for peoples' ailments than are doctors. This is a pernicious habit and extremely detrimental to the well-being of the community. While the people should be educated not to become corner drug store patients but should have a complete study of their stomach complaints by a competent physician, at the same time the physician himself should not become a drug house doctor having the slogan, "After eating reach for baking soda." The best remedy for these astounding figures on cancer, is through early medical advice and thorough examination, always erring on the side of safety to the patient.

Medicine has always had an economic position in the business of the community and it shall continue to occupy a close relation to business. Certainly New Orleans itself owes its existence and progress to the discoveries and accomplishments of Medicine. It has not been beyond the memory of many of you that this section was cursed with the most feared and dreaded diseases. Chief among which were yellow fever, bubonic plague, smallpox, typhoid fever and malaria. These were bad enough in themselves, but the psychological effect exerted a demoralizing influence upon our population and prevented tourists from visiting our City, diverted settlers and business into other regions, thus retarding

the economic and industrial growth of the Community. The former, yellow fever and bubonic plague, have been eradicated, while the latter three, smallpox, typhoid and malaria, are curiosities by comparison.

You can recall the unsanitary condition of the open gutters, filled with garbage and slime, alive with larvae, the cisterns a breeding place for the mosquito, the surface out-house toilets, all constituting means for the transmission of disease.

With the elimination of these through improved sanitary measures our community was transformed from an undesirable and dreaded place in which to live into a City of health and beauty and prosperity. No longer does one fear to visit here, no longer do the inhabitants themselves flee to other climes to escape ill health.

So today when one gazes in wonderment upon the mighty Mississippi as it rolls its way to the Gulf, viewing great merchantmen engaged in commerce with the four quarters of the globe, as one looks at the towering office buildings, virtual beehives of humanity, as one sees a busy populace bustling along magnificent streets and boulevards, as one visits the wonderful public schools, he realizes the great expenditure of wealth, the triumph of architecture and engineering necessary for such, but he fails to reflect and become conscious of what really made it all possible—the elimination of disease and improvement of sanitary conditions through accomplishments of medical science.

Even now a new order of things is being created in the professional history of our city. Just as New Orleans is facing a great advance in her business, so also is the medical profession facing a great advance. She has always occupied a strategic position of medical education and her fame is known throughout the world. We are blessed with a capable and competent profession. We are fortunate to have this grand temple of learning which houses our great Tulane Medical School possessing an enviable and

glorious reputation for medical teaching. We have the magnificent clinics of our great Charity Hospital with its vast volume of material a great portion of which has never been cultivated. There is the Medical School of our splendid State University, and now comes the Mid-winter Clinics. So, with all these organizations co-operating harmoniously, in a great spirit of sympathetic understanding for the common purpose for which all medical schools and associations are created—the efficient training of physicians to enable them to efficiently care for the sick—it is believed New Orleans shall become with these advantages the mecca for medical training in the United States.

Then, gentlemen, you must yourselves realize you are a part of the profession of New Orleans and you must join with us in the proper enjoyment of these privileges. The members of the profession of our city express greetings to the visiting members of the Louisiana State Medical Society, extends the happy hand of fellowship to you, and hopes your stay will be as pleasant for you as we assure you it is for us. Welcome.

RESPONSE TO ADDRESS OF WELCOME*

S. C. BARROW, M. D.,†

SHREVEPORT, LA.

Mr. President of the Orleans Parish Medical Society, Mr. Mayor of the great city of New Orleans and Your Excellency, the great Governor of the great State of Louisiana: On behalf of the Louisiana State Medical Society, I wish to thank you for your kind words of reception and your hospitable welcome, and assure you that individually and collectively they are appreciated.

In coming to the city of New Orleans, however, in annual convention we come not as strangers among strangers, but we

come as friends to mingle with friends in furthering a cause than which no nobler exists, the advancement of the aims and ideals of organized medicine.

In the days gone by, there seemed to exist an intangible barrier between the people and the doctors of New Orleans and those of the state at large, a barrier which seemed to rear its head in dissension in all matters of debate, political, civic or scientific. However, through the processes of evolution the differences have been smoothed out, misunderstandings to a great extent have been forgotten, and we are today one people, one scientific, civic and political democracy.

Louisiana has always recruited leaders, and able leaders, from among her ranks. In the dark days of the past, according to history, there arose leadership to meet every crisis in every department of life. For the future and present we have no fear.

Dotted throughout our state today in every community we find hospitals thoroughly equipped and properly manned to care for the needs of the sick, and thanks to the civic genius of our distinguished fellow citizen, leader and Governor of the state, there are now, and being constructed great permanent highways making accessible these and other facilities to all.

Organized medicine claims a big part in the development of Louisiana, we realize thoroughly there is yet much to be done, many plans to be made, and it is for this purpose that we are now assembled in your city.

My function, Mr. Chairman, is to respond to the address of welcome. As President-Elect of the State Medical Society I crave one moment to say that it will be the aim of the state administration, the state medical administration, for the next year to maintain harmony and scientific progress to its utmost ability. I am sorry after there seems to be a thorough amal-

*Read before the Louisiana State Medical Society, New Orleans, April 14, 1931.

†President-elect, Louisiana State Medical Society.

gamation of the interests of the country with the city in medical matters we should find a little spirit of antagonism among the profession of this great city, a spirit which should not, must not, and has no reason for existing, a feeling which I am confident will be smothered out and harmony will reign. Should there

be any necessity for effort to be exerted by the medical administration of the state, it will be forthcoming if desired, in the interest of all.

I thank you, Mr. President, on behalf of the State Medical Society for your cordial words of reception, for we know, as we have learned in the past, that they are spoken with true sincerity.

CASE REPORTS AND CLINICAL SUGGESTIONS

A CASE OF NEUROLOGIC INTEREST.*

CECIL LORIO, M. D.,

BATON ROUGE, LA.

R. M. D., of Baton Rouge, Louisiana, white male, aged 11 years, weight 75 lbs, healthy other than the present condition. *Past history:* Father and mother living and well. No history of epilepsy, severe headaches, insanity, asthma, rheumatism, cancer, or tuberculosis. Five pregnancies, one of which was a miscarriage, 2 months, between the second and third child. Four living boys, one married with two health children. *Birth history:* Child was born January 1, 1920, high forceps delivery, weight 8½ lbs., labor very hard and much prolonged. Following birth, the baby was easily resuscitated, no cyanosis, cried and nursed vigorously. His general condition appeared good with the exception of an abrasion over the right occipital region due to the pressure of the forceps. The attending nurse was of the opinion that there was some injury because of a great amount of crying, though the records did not show any temperature or signs of irregular respirations nor was there any history of protrusions of the tongue or holding the head backwards. *Past history:* The usual diseases of childhood, including measles, chicken-pox, whooping cough between 3 to 5 years of age. First teeth at 7 months, sat erect at 6 months, walked at 10 months, talked at about 2 years with no apparent disturbance of speech. Has not had rheumatism, growing pains, chest diseases, or brain diseases. Removal of tonsils and adenoids was done at the age of 2. *Complaint:*

Epileptic spells, lack of proper function of the right arm and leg. *Present illness:* The present condition made its first appearance when at the age of 4½ years the father was playing with the child, holding him by both arms swinging and tossing him over his back he noticed that the child complained of a pain in his right arm. The father thinking that he had dislocated the arm made repeated attempts with tension to reduce a supposed dislocation but the next day the arm was apparently normal and not painful. Three months later the mother noticed a tremor of the right hand, lasting about 1½ minutes, and her description of it was that of a tonic contraction of the muscles of the hand; this condition occurred three or four times during that year. About the age of 5 years the family noticed these tonic convulsions were involving the entire right arm and at once consulted an orthopedic surgeon in Oklahoma City where they were residing. The child was complaining that his arm would go dead at times which was brought on mostly following intense exercise. During the visit to the orthopedic surgeon and while in the office being examined by the doctor he developed one of these attacks in the right arm which lasted about 1 minute and which the child described as though electricity was running through it. Immediately he referred the child to a neurologist who diagnosed it as Jacksonian epilepsy and treated it with small doses of luminol, which was ineffective. From then on the child's condition grew progressively worse. The convulsions of the right arm and shoulder were not accompanied with any loss of consciousness or dulling of the sensorium, nor was there any parasthesia or disturbances of sensory function. At this time the attacks were at intervals of one to three weeks. Somewhere later there seemed to be a spreading of the areas, gradually involving

*Presented at the Louisiana State Pediatric Society, April 13, 1931.

the entire right half of the body. About the age of 5 some of the attacks were accompanied with a lethargic state. During November, 1925, at the age of 5 years, the child was taken to a brain surgeon in St. Louis, who made a tentative diagnosis of left cortical tumor, suggested operation, but was postponed and gave luminal treatment. From this time until the fall of 1926, one year, the child went to school, was entirely free from attacks and led his classes in a most precocious manner, but the attacks then returned and were involving the right face, arm and legs, and occurring three to four times a month, and each spell was accompanied with euphoria, continuous chattering, but no loss of consciousness. January, 1927, he was taken to the Mayo Clinic, where complete examinations were made with a diagnosis of Jacksonian epilepsy; advised against operation and put on a ketogenic diet which was maintained under the strictest supervision. Two months following, the arm and hand began showing deformity, the forearm being flexed on the arm and the hand flexed on the forearm, so that the position was flexion, making it practically useless in the performance of his regular duties. The tonic convulsions at this time were as many as 10 to 14 a night, none during the day, occasionally being accompanied with unconsciousness, but at no time was the leg or arm paralyzed. In February, 1928, at which time the attacks were very frequent and severe, he was returned to the brain surgeon in St. Louis. Roentgenograms showed convolitional markings but no tumor shadow. A craniotomy performed, finding a typical looking epileptic cortex with engorgement, ironing of part of the gyri, increased ventricular pressure, but no tumor. The arm motor center was located in the prerolandic area by means of the galvanic current and it was found that it lay directly under a very large Krause vein which he did not care to excise as it might have caused marked symptoms. He, therefore, injected alcohol into the cortex with the idea of destroying the arm center (a procedure which since then has been given up). With a thorough needling of the cortex he could not locate a tumor. Following the operation the child was apparently very much improved in so much as the number and intensity of the attacks were less and a greater part of the function of the right half of the body returned: school duties were maintained at a high

standard with apparently no mental defect or dulling. This improvement was fairly constant until about 18 months later in September, 1929, when the condition again became progressively worse, being accompanied each time with unconsciousness. His condition becoming grave, so much so that his left hand was being involved and he had difficulty in walking due to awkwardness and stumbling. This was the time when I first examined the child, and recognizing his severe neurological condition referred him to a neurologist in New Orleans, who examined him thoroughly and returned him with the following report:

Cranial Nerves—

I. Normal.

II. Choked disc, R. & L. about 3D, vision reduced but not measured, no field defect for form on rough examination.

III, IV, & V. No ptosis, extra ocular movements normal, no nystagmus, pupils equal and regular, react to light and in convergence.

VI. Normal, motor and sensory (corneal reflex present).

VII. Normal.

VIII. Hears watch tick normally, vestibular function not tested.

IX, X, & XI. Normal.

There is a definite paresis of the right side but no muscle is actually paralyzed; he walks with a limp and does not use the right hand although the strength is fair. The left side is also weak but markedly less so than the right—the movements of the left lower extremity are fair but those of the upper are very much impaired. The impairment which he shows is apparently due to a lack of synergic control, not a cerebellar incoordination but to the occurrence of athetoid movements; he cannot write or button his clothes with the right hand at all and very poorly with the left.

The sensorium was normal throughout, he stands in Romberg's position, there is no astereognosis.

The tests for coordination were rather poorly performed, but one was impressed with the interference by athetosis rather than any true incoordination. There was a slight tremor of the extended hands.

Superficial reflexes were present and equal, all tendon reflexes were very sluggish with little difference between the two slides, even so he would occasionally show a few strokes of clonus on the right but never sustained. Pathological reflexes were not elicited. He showed no Kernig or Lasegue sign, the neck was not stiff.

One cannot escape the impression that this child is afflicted with a tumor of the brain, based both on his history and physical finding. I am aware that he has been explored by a very outstanding neurological surgeon who could not demonstrate the presence of a tumor, but my impression is that at the time of the exploration the tumor was probably present and was situated so deeply that it was impossible to reach it. It is probably near the base and near the midline, starting perhaps on the left side and now involving both sides. The signs he shows point to involvement of the basal nuclei. He has had the benefit of an exploration with a decompression and I feel skeptical as to the benefit to be derived from further surgery, but at the same time I feel now as I did then, that you should communicate with the St. Louis doctor and obtain his opinion. In as much as his seizures are becoming more frequent and are markedly increased when the luminal is omitted I believe that it is advisable to continue with this medication.

Very truly yours,

A. B.

Two months later the child's condition grew so much worse that I again sent him to the neurologist in New Orleans who then reaffirmed the diagnosis first made of a deep seated brain tumor, hopeless. Returning from New Orleans I made a complete examination and found that the child was unable to walk because of the left sided involvement. The onset of this left side development began with an awkwardness, frequent stumbling, dropping objects from his hand, spilling foods and generally nervous. With the hands extended a fine tremor was noticed with irregular twitchings of the fingers also a tremor of the tongue was noticed. Speech became much affected so that it was impossible for him to enunciate, therefore he could not be understood. The mental condition remained good and the mother was required to read to him almost continuously. Facial grimaces

noticed, muscular movements were rapid, irregular, involuntary and of wide excursion. A twitching of the fingers and incoordinate convulsions of the hand and left were present. Both patellar reflexes were exaggerated with a questionable Babinski. The optic discs were normal with possible a slight engorgement of the retinal vessels. The child lay in a very restless, helpless, painless and at times listless position, unable to perform his daily duties. On several occasions there was urinary retention and only twice did he have any headaches, though there was at times a tendency towards visual disturbances. It was during the first week of this late development that the neurologist in New Orleans thought the child hopelessly affected with a deep seated tumor incroaching on the brain areas that involved the left side of the body. But, strange to say, all of the symptoms subsided shortly thereafter and the child progressively improved to such an extent that the parents were of the opinion that he was in a better condition than ever before since the origin of the trouble. About eight months later, in August, 1930, there was a recurrence of the above described condition—that is, awkwardness, stumbling, dropping of objects, spilling foods, tremor of hands and tongue, blurring of speech, rapid, irregular and involuntary muscular movements of wide excursion. This last attack lasted about three weeks to one month. Following the subsidence of these symptoms his co-ordination has not been very good and at the present time his physical examination reveals spasticity of the right arm and leg. Athetoid movements at times are rather pronounced and he is unable to control the right hand as usefully as the left. Speech decidedly blurred but has been since I have first seen him. Sensation to heat and pin point is normal; is unable to stand erect on the right leg with the left elevated. A noticeable spasticity of the right side is present and at the present time he is having tonic convulsions of the right arm and leg and sometimes the entire body, usually about once during the night lasting two or three minutes. Grasp is unequal; he is very tired most of the time and seems to hold the head inclined to the right. When his tonsillectomy was done the uvula was removed. Wassermann, negative, urine negative, blood count normal, stool negative. Spinal punctures were not done because of the seriousness

of the child during each attack and because of the prevailing diagnosis of tumor of the brain previously made; although I do think it has on several occasions been indicated and that at any subsequent attacks I intend doing it.

DISCUSSION.

From the history, symptoms, and physical examination one is at once impressed with the regularity and progressiveness of events occurring in this child. From early childhood until the present day he has had a physical disturbance of the right side of his body indicating some type of upper neuron lesion. The attacks have repeatedly indicated pathology involving an area located between the basal nuclei and the cortex of the left side. Several of the South's most eminent neurologists have agreed on the diagnosis of tumor but have been unable to show proof. One of them attempted to locate it after doing a decompression but was unable to find it. His symptoms have been similar with every attack, having a tonic convulsion of the right arm and leg, and at times encroaching upon the opposite side as though following the anatomical location of the centers of the brain and usually not accompanied with sensory or physical disturbances, consciousness usually being present. History of trauma, infantile cerebral palsy, heredity, acute inflammatory disease of the brain, or any other referable etiology is entirely lacking. It is apparent that this child is of the Jacksonian type of epilepsy with some brain pathology, probably a circumscribed inflammation, the most common of which are due to trauma, tumor, abscess, gumma, tubercle, local meningitis, post-encephalitis and localized edema of the brain may be ruled out by symptoms. Trauma, even in the absence of history, must be considered. Vascular lesions and scar may be present

without our knowledge of it. So that it would be logical to conclude that the source of the epileptic seizures is some circumscribed inflammatory area of the brain but of questionable location and type. From the history it will be noted that the child has had three severe individual and distinct attacks of a condition which does not correspond with the usual type of Jacksonian epilepsy. This refers to those periods of three to eight weeks duration when the child was sluggish, awkward, stumbling, generally nervous, dropping objects, tremor of the hands, irregular twitching of the fingers, tremor of the tongue, facial grimaces, rapid muscular movements of the irregular, involuntary and wide excursion type. The above syndrome reminds one conclusively of some type of generalized inflammation or irritability of the brain, *i. e.*, chorea. Whether or not these symptoms were the true rheumatic chorea or due to a general nerve irritation radiating from some central focus (the Jacksonian focal area) is open to conjecture. His mental characteristics appear normal and he does not have the epileptic make up—that is, of volative explosive temper, egotism, sensativeness, with impaired memory and mental retardation. Though he does not give evidence of being abnormally brilliant, his intelligence is at par. Julius Caesar, Peter the Great, Napoleon and other brilliant men had epilepsy, so that it does not necessarily indicate that this child's mental condition will be below normal. In conclusion, it may be said that this child is affected with an epilepsy of the Jacksonian type, and judging from his past treatments, both medical and surgical, it is to be expected that there will be a continuance of symptoms unless it will be possible to locate and remove the offending factors.

NEW ORLEANS

Medical and Surgical Journal

Established 1844

Published by the Louisiana State Medical Society under the jurisdiction of the following named Journal Committee:

S. C. Barrow, M. D., *Ex-Officio*
 For one year: W. H. Seemann, M. D.,
 Randolph Lyons, M. D., Secretary
 For two years: John A. Lanford, M. D.
 For three years: S. M. Blackshear, M. D.,
 H. W. Kostmayer, M. D., Chairman.

EDITORIAL STAFF

John H. Musser, M. D. *Editor-in-Chief*
 Leon S. Lippincott, M. D. *Editor*
 Willard R. Wirth, M. D. *Editor*
 H. Theodore Simon, M. D. *Associate Editor*
 Frank L. Loria, M. D. *Associate Editor*
 D. W. Jones, M. D. *Associate Editor*
 Jacob S. Ullman, M. D. *Associate Editor*

COLLABORATORS—COUNCILORS

<i>For Louisiana</i>	<i>For Mississippi</i>
H. E. Bernadas, M. D.	J. W. Lucas, M. D.
Daniel N. Silverman, M. D.	L. L. Minor, M. D.
C. C. DeGravelles, M. D.	M. W. Robertson, M. D.
J. B. Benton, M. D.	Thomas J. Brown, M. D.
C. P. Gray, M. D.	Willie H. Watson, M. D.
J. H. Slaughter, M. D.	W. G. Gill, M. D.
D. C. Iles, M. D.	Jos. E. Green, M. D.
J. H. Landrum, M. D.	J. W. D. Dicks, M. D.
	D. J. Williams, M. D.

Paul T. Talbot, M. D. *General Manager*
 1430 Tulane Avenue

SUBSCRIPTION TERMS: \$3.00 per year in advance, postage paid, for the United States; \$3.50 per year for all foreign countries belonging to the Postal Union.

News material for publication should be received not later than the twentieth of the month preceding publication. Orders for reprints must be sent in duplicate when returning galley proof.

THE JOURNAL does not hold itself responsible for statements made by any contributor.

Manuscripts should be addressed to the Editor, 1430 Tulane Avenue, New Orleans, La.

THE POTENTIAL MALIGNANCY OF WARTS AND MOLES.

Under the above caption Maes* has written most sensibly in the editorial columns of Surgery, Gynecology and Obstetrics. His theme is so trite and so commonplace that it hardly seems necessary to accentuate what this sterling surgeon has written, but it is just such apparently trivial things that we are wont to overlook

*Maes, Urban: The Potential Malignancy of Warts and Moles, Surg., Gynec., and Obst., 8:111, 1931.

and certainly frequently neglect; they may not be of unusual interest but are of extreme importance. As Maes writes, these insignificant and harmless neoplasms in many instances are potentially malignant, and may ultimately result in the death of the patient as a result of widespread metastases. There is no way of being able to determine the susceptibility of the individual to cancer or to the likelihood of the apparently benign growth becoming malignant.† Therefore, it is the duty of physicians to explain to the patients the possibilities that may occur, particularly if moles or warts are subject to frequent trauma and to suggest their immediate removal, nay, to insist that they be removed promptly, either by the knife or by electro-surgery.

THE PRESENT DEPRESSION

A spirit of pessimism seems to prevail widespread throughout the United States. This great country, which only a few years ago was riding high on the crest of affluence and industry, has gone to the other extreme and has dropped into the slough of economic despond. Undoubtedly a great deal of this depression represents a most interesting psychic phenomenon. Of the great bulk of Americans working at the present time, estimated at 85 per cent of the wage earning population, a goodly percentage of those that are employed have not suffered loss of income, and are as comfortable as they were in the days of great prosperity; but not so contented. There is a certain fear prevalent that things may go from bad to worse, a thought which is most depressing to these individuals who are employed. Just at the present time the financial situation seems to be improving, and it is quite possible that in a relatively few months there will be betterment in all lines of industry.

To the doctor the depression is particularly hurtful. The physicians' bills are al-

†Note case of Dr. Johnston, in Section of Hospital Staff Transactions, p. 208.

ways those that are paid last, and many people even though well able to pay the doctor are using the present situation as an excuse for postponing the meeting of their obligations to the physician. They are using the depression as a reason for non-payment of their bills and the doctor suffers. The patients who are on a fixed salary, which has not been modified by the present day conditions, are in many instances doing this, forgetting that the physician has his office rent to pay, his automobile to keep up, and his technical equipment to maintain. The only hope that can be held out for the near future is that there is some clearing of the economic sky. and the woeful fear and often spurious dread of the future will banish from the minds of those who have no reason to have it. When this happens it is quite possible that the physician will become relatively affluent for a short period at least, because, after all, unpaid bills are usually paid sometime or another, and it is perhaps possible that bills due in reasonably large numbers will come flowing in more or less simultaneously.

ARISTIDES AGRAMONTE.

Several months ago Dr. Agramonte came to New Orleans to occupy the Chair of Tropical Medicine in the New Louisiana State University Medical School. The arrival of Dr. Agramonte in New Orleans was hailed by the local and state medical profession as a great addition to medicine in this vicinity. Elaborate plans had been made by Agramonte and by the authorities of the new school for the development of an outstanding Department of Tropical Medicine. Distressing and sad indeed is it to hear that this outstanding physician apparently in the full vigor of health succumbed suddenly to a heart attack on the seventeenth day of August.

Dr. Agramonte needs no introduction to the medical profession of the United States, but to the medical world of Louisi-

ana and New Orleans his fame and reputation is known intimately on account of the bearing that the results obtained by the United States Army Yellow Fever Commission had on local health conditions. Although yellow fever at one time had been a scourge of the entire eastern seaboard from Boston southwards, at the time the Commission functioned it was only in the cities of the southern United States that bordered the Gulf that epidemics of yellow fever were likely to occur. This Commission rendered to New Orleans, as the largest City of the South and on the Gulf, a service which can not be estimated in monetary values nor in the number of lives saved. Agramonte was one of the active protagonists of the mosquito theory advanced most forcibly by Findlay, and it was natural that he should be appointed to the Yellow Fever Commission, organized by Walter Reed. His name with that of Carroll and of Lazear will rank just under that of this great American Army Surgeon.

The life of Agramonte is one of varied interest. Born in Cuba, as a child he was taken to Mexico and when twelve years of age came to New York City. He went through the usual preliminary school and medical education to become a doctor in 1892. Apparently he was destined to practice the remainder of his life in New York City, but at the onset of the Spanish American War he promptly threw up his civil appointments and entered the United States Army. In 1902 he resigned from the Army and went to Havana as Professor of Bacteriology in the medical school of that City. In the years that intervened before coming to New Orleans, his life was a full and busy one. In addition to his active teaching and investigative work, he was the outstanding practitioner of medicine in Havana, and was almost, were such a thing possible, the official doctor to the American Colony in the capital of Cuba. During these years many honors were showered upon Agramonte, and he

was most active in various types of public health work in the Republic of Cuba.

In 1928 Dr. Agramonte was a guest speaker at the meeting of the American College of Physicians in New Orleans. He contended strongly that the concept of Noguchi, that yellow fever was due to a specific leptospiral organism, was incorrect. Time has substantiated Agramonte's contentions.

To those who knew this great Cuban-American physician his loss will be a very real one. A charming gentleman and delightful host, as those who have visited Havana well know, Agramonte was a friend worth knowing. To those who were not personally acquainted with him, the potentialities of his presence in New Orleans held out so much that his going will be equally a real blow.

HOSPITAL STAFF TRANSACTIONS

KING'S DAUGHTERS' HOSPITAL, GREENVILLE.

The staff of the King's Daughters' Hospital, Greenville, met July 8, and held a short snappy program after our dinner at 7 P. M. in the hospital dining room. The staff meets every second Wednesday in the month.

Dr. T. B. Lewis gave an interesting case report, after bringing up for discussion the subject of mortality in appendicitis. He reported some of the statistics of a prominent insurance company and others, including Dr. Evans of Chicago, showing the surprisingly increased death rate from appendicitis in the past twenty years. The truth of this condition was challenged by our staff and especially by Dr. H. A. Gamble, who proved his point by his records of more than two thousand cases since 1918, with seven deaths or less than one-third of one per cent. The records of the other men here will probably show about the same percentage of mortality. So for this part of the State we cannot agree with the alarming reports as given.

Dr. Lewis also reported a case of appendicitis and partial obstruction of the bowel produced by a large round worm. The worm had coiled up in the ileum about twenty inches from the ileo-cecal valve and the bowel down to the cecum was completely collapsed and considerably inflamed. An acutely inflamed appendix was removed. The desire to remove the worm through an opening in the gut was overcome. The coil was broken up and left to find its way out under the influence of a vermifuge given a few days later. The worm did no further harm and the patient had a quick and uneventful recovery.

J. C. Pegues, Secretary.

CHARITY HOSPITAL, NATCHEZ.

Report of a Case of Intestinal Obstruction Due to *Ascaris Lumbricoides*—Dr. T. H. Rayburn,

House Surgeon, in collaboration with Dr. E. E. Benoist, Natchez, and Dr. C. A. Everett, Bude.

History: C. R., colored, female, aged 2 years, was admitted to the Natchez Charity Hospital, June 8, 1931, case No. 1033.

Her present illness started three days before admission with diarrhea and vomiting of a persistent character, pain in lower abdomen, and some fever. She was given castor oil one day prior to admission which acted once. The last few hours before admission, vomiting ceased, straining at stools was noticeable and stools contained only dark brown fluid and mucus. It was not until operation had been performed that her mentally deficient father recalled that she had passed a few round worms about three weeks previously.

Physical Examination: A well developed and well nourished colored female about three years of age, lying on examining table, apparently very ill and irritable with periodic (every 2 to 3 minutes) outcrys suggesting pain of a spasmodic character. Temperature 99° F. by axilla, pulse 100. No deformities or other acquired or congenital stigmata present. Head, heart, and lungs clear.

Abdomen moderately distended and tympanitic. Muscles were somewhat tense but could be controlled by suggestion and gentle stroking, after which palpation could be done with fair ease. There was a firm, freely movable mass, the circumference of which was that of a large orange, and the length about eight inches. It extended from about four inches above to about four inches below and to the right of the umbilicus. Manipulation of mass caused very little discomfort. Rectal examination revealed a large, firm, freely movable and only slightly tender mass which started in right iliac fossa and extended upward.

Laboratory: Admission blood count: W. b. c., 17,850; polys., 77 per cent; lymphocytes, 19 per

cent; transitionals, 2 per cent; eosinophiles, 1 per cent; basophiles, 1 per cent.

Preoperative Diagnosis: Intestinal obstruction. As a causative factor, intussusception and Meckel's diverticulitis were given as the most likely possibilities. Impaction by round worms was mentioned, but given little credence.

Operation: A long mid-right rectus incision was made. As soon as the peritoneum was opened, the mass fell into the wound and an entangled mass of round worms was visible through the gut wall. Blood supply to gut was still fairly free and the gut wall was in recoverable condition except for a spot about the size of a dime. The mass started about eight inches above ileo-cecal valve and extended upward. The appendix was elongated, injected and inflamed. A small quantity of clear brownish fluid was recovered from the peritoneal cavity. The mass was delivered, an opening made in wall of gut and worms removed. After closing opening, another smaller mass was discovered about 10 inches above larger mass and gut wall was again opened and worms removed. Eighty-four large round worms from 6 to 14 inches in length were recovered. A large hard rubber catheter was inserted into ileum about 10 inches above valve, retained by two purse-string sutures,

and by the end of the fifth day and for the remainder of the convalescence period there was no fever. Her general condition followed the temperature curve. There was considerable restlessness for first week. The abdomen was perfectly soft from the beginning. During the first two weeks the ileostomy opening drained profusely soft fecal material and worm fragments well diluted with fluid. During third week opening drained only slightly and by the end of the third week opening had ceased to drain at all.

After beginning of second week bowels started moving from below, she took plenty of nourishment, became playful, and rapid recovery was evident. During latter part of third week urine showed only occasional pus cells in a voided specimen; Rbc., 5,580,000; Hb. 100 per cent (Tallquist).

Kahn test on blood was unsatisfactory. She was discharged into the hands of the family physician on the twenty-sixth day in excellent condition.

VICKSBURG SANITARIUM AND CRAWFORD STREET HOSPITAL.

Staff Meeting—August 10, 1931.

Abstract: Carcinoma of the Stomach—Dr. A. Street.

Patient: White, female, age 59, married, two children; admitted to hospital July 15, 1931.

Present Illness: Since having a bad spell of influenza four months ago, patient has been having afternoon temperature, 99 to 100° F., and failing in strength. She has lost 43 pounds in weight (from 183 to 140). Appetite very poor; no nausea; severe pain in left abdomen about the level of the umbilicus and occurring promptly after eating. This pain is often precipitated by a drink of water. There is no other pain than as above described. Bowels normal; sleeps well; no bladder disturbance; slight dyspnea on exertion; no cough; no tar stools. She thinks she notices a lump in the left abdomen at times.

Physical Examination: Temp., 99.8° F.; blood pressure, systolic, 135. Well developed and nourished; skin, rather pale; teeth, false; tongue, slightly fissured and the middle third very red but not smooth. Abdominal examination shows no masses and no tenderness. Physical examination otherwise not remarkable.

Urine: Sp. gr., 1.023; slight trace of albumin; few fresh red blood cells.

Blood: Hb., 62 per cent; erythrocytes, 4,200,000; leukocytes, 9,200; small lymphocytes, 7 per cent; large lymph., 1 per cent; monocytes, 6 per cent; polym. neutrophils, 83 per cent; polym.



Mass of Round Worms Causing Obstruction of the Intestine.

and anchored to parietal peritoneum at lower angle of incision. Incision closed in layers without drain in peritoneal cavity.

Postoperative Care and Course: Beginning on first postoperative day, when the temperature was 101.6° F. by axilla, there was a gradual decline, temperature never again going above 100° F.,

eosinophiles, 2 per cent; polym. basophiles, 1 per cent. Wassermann, Kline and Young, and Kahn tests negative.

Fractional gastric analysis showed no free HCl; much mucus, lactic acid, a trace of chemical blood and microscopically a few fresh red blood cells. Blood urea nitrogen was 28 mg. per 100 cc.; blood sugar 83 mg. per 100 cc.

Fluoroscopic and radiographic examinations showed a large mass in the central portion of the stomach, giving rise to a large, irregular filling defect. Roentgen-ray diagnosis: carcinoma of the stomach.

Procedure: Exploration was advised in order to see whether or not the growth was operable and to remove it if operable. The stomach was lavaged each morning for seven days prior to date of operation, and the patient was fed bland soft food in small amounts and at frequent intervals. A suitable donor for transfusion was obtained and was present shortly before the time set for operation. The patient was taken to the operating room with the duodenal tube in the stomach. Before beginning the operation, the stomach was washed and one ounce of 1 per cent acriflavine solution injected into the stomach.

Operation, July 23, 1931: Spinal anesthesia; a very high right hand paramedian incision. The distal half of the stomach is invaded by a large, hard, nodular growth. The anterior surface is free; the posterior surface is fixed. There are large glands in the gastro-colic and gastro-hepatic omenta. The liver is not apparently involved. The fixation of the posterior surface made operability questionable, but palpation of the pancreas showed it free of induration and resection was decided upon. After ligating and dividing the blood vessels on the greater and lesser curvatures, the stomach was divided proximal to the growth. The condition on the posterior wall could then be observed much more accurately than before. As the stomach was rather low, part of it was in relation posteriorly to the mesocolon and mesocolon was invaded. One of the branches of the middle colic artery was within this portion. A temporary clamp was placed on this arterial branch, and the transverse colon carefully observed. It was finally decided that blood supply was not impaired and the artery was then divided and ligated and the involved portion of mesocolon resected. In doing this, a perforation was uncovered which allowed the escape of gas and some of the flavine colored content of the stomach. The granulating floor of the perforation was carefully removed. The remainder of the mobilization was quite easy; the duodenum was divided and the stump inverted. The proximal jejunum was drawn through the opening which was made

when part of the mesocolon was resected, and the entire end of the stomach was anastomosed to the side of the jejunum (Polya operation). The margins of the opening in the mesocolon were then stitched to the stomach just proximal to the line of anastomosis. The peritoneum was closed and a small drain placed in the abdominal wall. A transfusion of 600 c.c. of citrated blood was given during the operation. The duodenal tube was left in the stomach.

Subsequent: The patient's convalescence has been uneventful. She eats without discomfort and is to return home in a few days. There was some abdominal wall infection, but at no time was there abdominal distention or other evidence of peritoneal infection.

Tissue examination by Dr. Lippincott showed adeno-carcinoma (Group IV), with much ulceration. At site of perforation posterior growth extends through wall and into adherent fatty tissue. Two lymph nodes examined showing hyperplasia and chronic inflammatory changes but no cancer.

Abstract: Brain Tumor—Dr. J. A. K. Birchett, Jr.

Patient: Colored, male, aged 28, former dining car waiter.

Chief Complaint: Headache, nervous spells, vomiting.

Present History: About six months ago began having headaches and dizzy spells; four months ago first noticed nervousness; unable to write or concentrate on any work, head and hands would tremble. Any excitement or prolonged conversation will precipitate coarse tremor of head. Complaints of headache and after it develops will have severe vomiting which relieves condition for an hour or two. Then has tremor, headache and vomiting again. These phenomena have occurred as many as a dozen times a day. No loss of consciousness. At times not able to see well. There has been no marked loss of weight although there has been some steadily increasing weakness. No fever or chills. No evidence of any loss of muscle function; hearing normal.

Physical Examination: Temp., 98° F.; pulse, 60, full; blood pressure, 120/80; respiration, 18. Well developed and nourished. Eyes very prominent; no marked nystagmus; pupils react to light and accommodation. Examination of eye grounds under atropin showed marked bilateral choked disc. Knee jerks exaggerated. Spinal puncture showed fluid under markedly increased pressure and probably 60 c.c. of fluid escaped. Physical findings were otherwise essentially negative.

Blood Wassermann, Kline and Young and Kahn tests negative; spinal fluid Wassermann test and

colloidal gold test, negative. Blood and urine showed nothing remarkable.

Diagnosis: From history and physical findings, we think of brain tumor as the cause of the symptoms, but other diseases giving the same or similar symptoms and to be ruled out are nephritis, lead poisoning, multiple sclerosis, epilepsy, parietic dementia, abscess and gumma. The diagnosis of brain tumor is based chiefly on the evidence of choked discs, constant headache of varying intensity and especially increased by excitement or exertion, vomiting which is always a valuable sign and when present usually follows headache and is projectile in character, slow pulse, vertigo, and epilepsy of Jacksonian type.

In this case, the decidedly increased spinal fluid pressure, choked discs, the appearance of the sella tursica in the roentgen-ray plate, and the train of symptoms of headache, vomiting and eye disturbance suggest that the tumor is in the region of the hypophysis, although there is no evidence of the usual signs of perversion of the pituitary body secretions. This can be explained by the comparatively recent development of the tumor, which up to this time has apparently not interfered with pituitary secretions. The roentgen-ray in this case suggests a sarcomatous change with fragmentation and destruction of the clinoid process.

Abstract: Osteomyelitis, Acute.—Dr. G. C. Jarratt.

Patient: White, female infant, aged 2 years, 4 months; admitted to hospital June 11, 1931.

Chief Complaint: Fever; convulsions; pain and swelling of left leg.

Present Illness: Mother states that ten days ago child was taken ill with temperature of 105° F. Physician was called and pronounced the condition tonsillitis. Some fever the next day but was well up to four days ago, at which time she began to limp when walking. Fever then arose to high level and has been present since. At the same time swelling was noted in left lower extremity from knee to hip but most marked at knee joint. When attempt was made to move leg, child cried out with pain. Tonight about 10:30 o'clock, child had fever of 105.5° F., and generalized convulsions that lasted for two to three minutes. Another convulsion occurred at 11 P. M., lasting about two minutes. Has then been asleep since last convulsion and slept on trip to hospital (arrived about 2 A. M.).

Past History: No illness of any consequence except frequent attacks of tonsillitis.

Physical Examination: Temperature 105.6° F.; Blood pressure 130-90. Well developed and nourished; very acutely ill; drowsy but can be aroused.

Head: Not remarkable; pupils equal and react to light and accommodation; ears normal; nose normal; 16 milk teeth; no membranes or Koplik's spots; tonsils moderately enlarged but not inflamed. Neck: no glandular enlargement; no stiffness present. Chest: expansion good and equal; no rales, bronchophony or impaired resonance. Heart: no murmurs or enlargement. Abdomen: soft and flat; spleen and liver not palpable; no masses or tenderness. Genitalia: no discharge. Skin: no rash or petechiae; several areas of impetigo on chin. Central Nervous System: negative Babinski, Brudinski, and ankle clonus; knee jerks normal; Chvostek's and Trousseau's signs negative.

Extremities: upper and right lower normal. Left lower: there is marked swelling of left thigh from knee to junction of middle and upper thirds, increased heat, redness, and is very painful to touch or movement; no swelling of lower portion of knee joint; no areas of fluctuation; swelling seems deep.

On June 11, blood showed leukocytes, 41,500; polym. neutrophils 83 per cent; no malaria found. Urine: slight trace of albumin; granular and hyaline casts and few fresh red blood cells. Roentgen-ray examination of left femur was negative.

Diagnosis: Osteomyelitis, acute, of left femur; septicemia; acute hemorrhagic nephritis.

Procedure: Child was taken to operating room and incision made along the middle and lower thirds of left femur on dorsal surface; dissection through muscles. Upon separating muscle bellies, there was a gush of about one-half pint of pus. The periosteum had been dissected from the bone. Small holes were made through the shaft of the femur with electric drill, along middle and lower thirds. The wound was packed with vaseline gauze and splint applied to thigh and leg. Glucose solution 10 per cent, 150 c.c. was given intravenously.

Cultures of pus showed *Staphylococcus aureus*.

June 12: Blood pressure 120/80; temp. 104.4° F. Spent a restless night and was very toxic. On night of June 12, noted redness and swelling of middle phalanx of left ring finger; very painful. Diagnosis. osteomyelitis, acute.

June 13: Blood pressure 124/80; temp. 104° F. Blood: leukocytes 14,700. Urine: slight trace of albumin; no casts or blood.

Incision made on dorsum of middle phalanx of left finger; pus found beneath the periosteum. Culture showed *Staphylococcus aureus*.

June 15: Temperature 101.4° F. Child refusing nourishment and 200 c.c. of whole citrated blood given intravenously. Blood culture taken at this time showed *Staphylococcus aureus* and *Streptococcus viridans*.

Subsequently child's temperature remained around 100 to 101° F., she began eating and there was profuse drainage from femur and finger. Discharged from hospital on June 22, with negative urine, and eating well.

Since then child has remained free of fever and gained in weight. Femur still has some discharge. Roentgen-ray reveals good involucrum forming with very little destruction of shaft of femur.

Abstract: Melanoma.—Dr. Walter E. Johnston.

Patient: Colored, female, aged 31, widow; first seen at home July 8, 1931.

Chief Complaint: Weakness, loss of weight, and sore on forearm.

Present Illness: Since birth patient has had a small mole, about half the size of a pea, on her right forearm. In December, 1930, while sweeping, she brushed her arm against a sharp nail. The nail penetrated the skin near the base of the mole. In several weeks a small black growth appeared at the site of the wound. This was treated with castor oil until February, 1931, at which time she consulted a physician who "burnt the growth off." For about a month following this the wound healed very slowly. She states that it was almost well when she accidentally struck it again. Around the first of June she noticed a large knot in the right axilla. This has gradually enlarged until it interferes with movement of the arm. During the present illness she has had anorexia and has lost weight rapidly. She has become very weak and nervous. In the last few weeks she has rapidly grown worse. At the present time she is unable to feed herself and has probably lost 20 to 30 pounds of weight.

Family and Past History: Essentially negative.

Physical Examination: Weight 123 lbs.; temperature 99° F.; pulse 130; resp. 30; blood pressure 110/80. Fairly well developed but poorly nourished; skin dry and shows signs of recent loss of weight. Slight general glandular enlargement. The most striking finding in the entire physical examination is the enlarged lymph glands in the right axillary and supraclavicular regions. The nodes in the axillary region form a mass about the size of a lemon while those in the supraclavicular region are as large as an orange, very firmly fixed and almost bonelike in consistency.

Head, eyes, nose, mouth, and ears negative; marked enlargement of both lobes of thyroid; lungs, heart, abdomen, and pelvis negative; on dorsum of right forearm a smooth, skinny, firm black mass is seen, about 3 cm. in diameter.

Urine negative; Wassermann test positive; biopsy and tissue examination shows melanoma.

Discussion: The melanomata derive their name from their characteristic color which is due to the brownish or yellowish pigment contained in the tumor cells. The tumor occurs chiefly in the skin or in the subcutaneous tissue, but is also found in the choroid of the eye, the iris and conjunctiva, on the mucous membrane of the pharynx and rectum, and in the central nervous system. No portion of the surface of the body is entirely exempt from melanomata, but they are relatively frequent on the plantar aspect of the feet and toes, also on the extremities and on the face.

The melanotic tumors are among the most malignant forms known and not only involve the lymph nodes very early but also invade the blood vessels and form metastases throughout the body, enormous masses occurring especially in the liver, also in the pleural, pericardial, and peritoneal cavities, and especially the bladder. They are fortunately rather rare, forming only about one-half of one per cent of malignant growths.

Macroscopically the tumors are interesting in showing a great variation in the amount of pigment. The primary tumor and its metastases may be coal black. The tumor may be mottled brown and white or may contain only a few dark areas. The metastasis from a perfectly black tumor may be white or metastasis from a light tumor may be intensely pigmented. The nature of the pigment is not fully understood.

Microscopically the early metastases resemble very closely the tissue from which they have been derived, that is, they are found to contain small masses of oval or spherical cells with large vesicular nuclei, sometimes double. These cells may or may not be separated from each other by connective tissue. About and among them may be scattered pigmented connective tissue cells.

Treatment: Removal of all pigmented moles. It is perhaps over emphasized, but it should be remembered that it is possible for these types of moles to become malignant. Therefore, whenever a mole is subject to constant irritation, it should be removed. The frequency of involvement of regional lymph glands in malignant melanoma of the skin and instances of patients surviving 10 years after removal of the glands, confirms the desirability of attacking the glands along with the primary treatment. These types of tumors are but little affected by radiation. Wide distribution often follows the application and the same is true of the results of caustics, fulguration and freezing. Surgery, therefore, is the only treatment for melanotic tumors, and the excision must be early and wide and must include the regional lymph nodes.

LOUISIANA STATE MEDICAL SOCIETY NEWS

H. Theodore Simon, M. D., Associate Editor.

SPECIAL NOTICE.

There is considerable demand for back numbers of the Journal previous to the year 1855. The Journal would respectfully ask that anyone having these back numbers send them to this office at once.

AVOYELLES PARISH MEDICAL SOCIETY.

Head of State Doctors, A Friend to His Profession. Dr. S. C. Barrow, President of State Medicos Makes Timely Talk to Avoyelles Medical Society.

(Reprint of Weekly News, Marksville, La., August 1, 1931).

The Avoyelles Parish Medical Society held its quarterly meeting and "Annual Ladies Meet" at Marksville, Wednesday night, July 22. The wives of the local members, including Mrs. S. C. Barrow of Shreveport and Mrs. J. H. Landrum as guests joined in the dinner at the Mayer's Hotel, after which they were entertained to a Movie Show at the Palace Theater, while the doctors repaired to the Court Building where they held a short program followed by an address given them by Dr. S. C. Barrow, eminent Radiologist of Shreveport and President of the State Medical Association. Besides Dr. Barrow, Dr. J. H. Landrum, Councillor from the Eighth District and Dr. Gordon Morgan of Melville were guests at the meeting. Dr. R. G. Ducote, President, presided. The following members of the Avoyelles unit answered the roll call: Drs. Emil Regard, K. A. Roy, W. F. Couvillon, S. J. Couvillon, Sylvin deNux, A. M. Haas, W. A. Quirk, H. C. Jones, A. T. Barbin, L. D. Lafargue, J. L. Pittman and R. G. Ducote.

Dr. Barrow's address was a masterpiece of language and thought, proved very timely and from the expressions of the local physicians in attendance, it's evident that his talk was the most appropriate that was ever delivered along medical lines in Avoyelles parish. While space limitations prevent all what the Doctor had to say, yet this paper takes pleasure to quote the "high lights" of his address with the hope that the physicians of the country, as well as the public generally will take heed to the Doctor's advice and warnings. The distinguished guest's speech was lead by Dr. Walter Couvillon in discussion, followed by Drs. Emil Regard, deNux, Sam Couvillon, Haas, Pittman, Landrum and Morgan.

Dr. Barrow discussed "Medical Organization and Medical Economics" and began by complimenting the Avoyelles medicos for their activities and numbered the local unit among the "seventh most ac-

tive medical organization in the State, as well as the recognized oldest rural medical society in Louisiana." He stressed strongly "to continue to remain well organized" and pointed out that in those parishes where a small number of physicians resided, he had advised that they join the District Society.

The problem of "Medical Economics" was very much emphasized by the Doctor. "The time has come when tradition has to be violated and the question of finances discussed" he argued and "where comes the evil of discussing finances when the great teacher of man discussed monetary problems in many of his parables and in none did he teach other than that the honest and ethical manner of distributing or acquiring money was a sin?" "Creeping in from all angles, insidiously and relentlessly, the Doctor's source of income is being trimmed while we sit supinely by, living upon tradition." This however, as Dr. Barrow explained does not mean that the "time honored and sacred relationship existing between the Doctor and Patient by which their professional and business arrangements are mutually satisfactory, must be disturbed."

The "indigent sick" he pointed out "is a State and Community problem and should be met by the whole community and not any longer be shunted to the shoulders of the Medical Profession." "During our recent catastrophes, droughts and overflows in Louisiana, the indigent people were safeguarded by the Red Cross Society, Health Units and other Governmental agencies. During rehabilitation days the calls on local merchants to feed and clothe those poor unfortunates, as well as the replacement of homes, stock and the care thereof, were made good financially by those agencies throughout the ordeals, but when those poor people became sick, although it's a matter of fact that the doctors of the country always contributed their share or more in support of all local, State and National charitable institutions, the Doctor is made to donate his only commodity, free medical and surgical service."

This, as the Doctor argued is "fundamentally, economically, logically, morally and in every other way wrong, though in line with what some would term Tradition." "When the profession learns to be a little more deliberate in running up the flag 'No Charge' in matters of medical service, where the whole community, the State, the Nation or their subdivisions owe the obligation, the problem at issue will become much easier to solve."

"The practice of our profession is our business and is virtually our only means of making an honorable living and deep in the hearts of every conscientious physician he knows this statement to be true." "He who is afraid of criticism when he knows he is right, lacks manhood and such a trend can be changed only by perfect medical organization and co-ordinated efforts so essential to our welfare and so shining an example to posterity."

Secretary's Note: Dr. Barrow's talk incited such keen interest with the medical men of Avoyelles parish, it became necessary to secure stenographic notes and have the "essential excerpts" of his address published in a local newspaper. The talk was altogether in order and touched the hearts of every doctor present. From the expressions revealed in the discussions, it was conclusively proven that the Doctor touched the keynote and what he said was true. His attitude on this all important subject should be upheld by the profession of this State—a phase in our business so grossly neglected.

S. J. Couvillon, M. D.,
Secretary Avoyelles Parish Medical Society.

BI-PARISH MEDICAL SOCIETY.

The Bi-Parish Medical Society met in the East Louisiana State Hospital as the guests of Superintendent Glen J. Smith and Staff.

After a most enjoyable banquet in the spacious dining room of the institution, the Society went as a body to the Parker Hospital operating rooms to be entertained and enlightened by a most scientific address by Dr. Tom Spec Jones of Baton Rouge, on "The Injection Treatment of Hemorrhoids." After the address Dr. Jones demonstrated the simple technique on two patients of the Hospital.

These injections may be performed in your office without hospitalization of your patient.

A vote of thanks was tendered Dr. Jones for his instructive discourse and practical demonstration to the physicians present. We extended a cordial invitation to the physicians of the States of Louisiana and Mississippi to be our guests at our regular Bi-Monthly meeting, the first Wednesday at 7:30 p. m., every other month. Our next meeting will be in the East Louisiana State Hospital, October, 1931.

DR. ROBERT G. DOUGLAS.

The many friends of Dr. Robert Gibbs Douglas of Shreveport were shocked to hear of his death July 23, following several weeks' illness. Dr. Douglas was born in 1885, and graduated from Tulane Medical School in 1919. Almost since the time of his graduation he has been connected with the Highland Clinic, where he devoted himself solely to internal medicine.

Dr. Douglas took an active interest in organized medicine. He was a regular attendant at the meetings of the State Medical Society, participated actively in the work of the Section on Medicine and Therapeutics, having presented several papers for this Section. He had been selected as Chairman of the Section on Medicine and Therapeutics for next year by Dr. Barrow. In the Shreveport Medical Society Dr. Douglas was likewise active, and his ability as a medical man and his charming personality resulted in his being elected President of the Shreveport Medical Society. Dr. Douglas was also Chairman of the Caddo Parish Citizens' Health Committee, directing and handling the anti-malaria campaign.

DR. H. T. NICHOLLE.

Dr. C. A. Weiss of Baton Rouge has sent to the Journal the following obituary of Dr. H. T. Nicholle, who died suddenly Monday, August 3, following a cerebral hemorrhage.

Henry Teche Nicholle was born at Convent, Louisiana, in 1882, and received his medical education at Tulane University Medical School, receiving his degree in 1908. Prior to his graduation he served as an Interne at Charity Hospital for two years. After his graduation he specialized in bacteriology and pathology, in which field he made rapid strides and was recognized for his accomplishments.

During the World War he served with distinction, being promoted several times; his final promotion being to that of Major.

After his service with the American Expeditionary Forces, he was sent into Germany with the Army of Occupation.

Six years ago he came to Baton Rouge as Bacteriologist and Pathologist at Our Lady of the Lake Sanitarium, where he soon gave evidence of his ability and his pre-eminent knowledge of

bacteriology and pathology. Under his guidance this department reached a high degree of efficiency.

One of the outstanding accomplishments was his organization of the monthly Clinical-Pathological Conferences of Our Lady of the Lake Sanitarium.

His associates will speak of his professional attainments, will tell of his ability. Notable as was his ability in his chosen and beloved profession, even greater was his capacity for friendship, his passion for service.

To his bereaved family we offer our deepest sympathy and assurance that the memory of his friendship and his kindness of heart will endure.

MORBIDITY WEEKLY REPORT.

Dr. J. A. O'Hara, in collaboration with the United States Public Health Service, of the Treasury Department, has issued weekly morbidity reports from Louisiana which are abstracted briefly below.

During the week ending July 18, the outstanding illnesses reported have to do with pellegra and syphilis. Of the former, 325 cases were reported, and of the latter 173. For the week ending July 25, pneumonia led all other reportable diseases, 77 being reported, and followed in order by syphilis 73, pulmonary tuberculosis 63, typhoid fever 48, and pellegra 42. For the week ending August 1, the reportable pneumonia cases had fallen to 49 and tuberculosis to 32. Syphilis had increased to 95 cases and typhoid fever to 73, 35 of which were reported in the Parish of Orleans and 32 of these were "imported" cases going to the Charity Hospital. For the week ending August 8, 50 cases of pulmonary tuberculosis were reported, 52 cases of syphilis, 70 cases of typhoid fever, and 35 cases of pneumonia. Of the typhoid fever cases, 16 came from the City of New Orleans, again a majority being "imported" cases, and 10 came from the Parish of West Carroll. Diphtheria, scarlet fever, small pox, and other contagious diseases were reported only in a very small number. The same statement holds true for these diseases in the morbidity weekly reports for the week ending August 15. There were, however, 50 cases of typhoid reported, 10 from the Parish of Caddo, 6

from West Carroll, and 7 from Avoyelles. During this week there were only 11 cases of pellegra reported, 26 cases of pulmonary tuberculosis, and 20 cases of pneumonia while 59 cases of syphilis were reported.

POST GRADUATE INSTRUCTION.

The New York Academy of Medicine has sent out circulars describing their fourth annual graduate fortnight of instruction. The two weeks' course that has been arranged seems most attractive. There will be clinics and lectures devoted primarily to disorders of the circulation, but in addition to this course there will also be given at the Mount Sinia Hospital additional lectures, including the two Janeway lectures, both of which will be given by Sir Thomas Lewis of London. The programs and the information concerning registration for this course are on file in the Journal office.

HEALTH OF NEW ORLEANS.

The Division of Vital Statistics of the United States Department of Commerce has reported for the week ending August 1, 1931, that there were 122 deaths in the City of New Orleans, giving the low death rate of 13.6. Sixty-seven of these deaths occurred in the white and 55 among the colored race. For the week ending August 8, there were 128 deaths in the City of New Orleans, 78 among the white, and 50 among the colored, giving the death rate of 14.3. Thirteen of these deaths were in children under one year of age. The number of deaths and the proportion among the two races during this week was practically the same as the corresponding week of 1930.

NEWS ITEMS.

President S. C. Barrow spent Friday, August 21, in New Orleans for the purpose of going over official State business with Secretary-Treasurer Talbot. Dr. Barrow also attended the Journal Committee held at 7:30 P. M. the same day.

Dr. Leon J. Menville has been elected an honorary member of the "Pi Gamma Mu," National Social Science Honor Society.

MISSISSIPPI STATE MEDICAL ASSOCIATION NEWS

L. S. Lippincott, Editor

Jacob S. Ullman, Associate Editor

D. W. Jones, Associate Editor

THAT WE MAY KNOW EACH OTHER BETTER.

Dr. Clyde Madison Speck, New Albany, Vice-President of the Mississippi State Medical Association, was born July 22, 1887, at Blue Springs, the son of P. M. and Dona A. Speck. He attended Mississippi Heights

Academy and received his degree in medicine from the Vanderbilt University Medical Department in 1912. He was licensed to practice medicine in Mississippi in 1910. Dr. Speck married Carrie C. Mayes, January 31, 1916, and has one daughter, Carolyn, born March 31, 1921.

Dr. Speck first engaged in medical practice at Blue Springs where he remained until 1917, then entering the medical department of the Army, as a First Lieutenant. He served in succession at El Paso, Texas, with the 10th Field Hospital, at the Base Hospital at Fort Sam Houston, at Camp Newton D. Baker, San Antonio, at Camp Tarvis, El Paso, and as Commanding Officer of Ambulance Company, No. 72 with the 18th Division. He received his discharge from the Army in 1918.

Dr. Speck returned to general practice at New Albany and was connected with the Mayes Hospital as assistant surgeon until 1927 when he organized the New Albany Hospital and Clinic, Inc., and was elected secretary. He is physician and surgeon, United States Bureau of Pensions, a member of the Northeast Mississippi Thirteen Counties Medical Society, the Mississippi State Medical Association, Southern Medical Association, and a fellow of the American Medical Association. He was this year elected secretary and treasurer of the Mississippi State Hospital Association

and is field examiner for the Veterans Bureau for the State of Mississippi. He is a Mason and a Shriner and a member of the Kiwanis Club of New Albany.



CLYDE MADISON SPECK, M. D.
New Albany, Miss.
Vice-President, Mississippi State Medical Association.

CALENDAR.

September 1: Claiborne County Medical Society, 3 p. m.; Staff of King's Daughters' Hospital, Brookhaven, 7:30 p. m.

September 2: Staff Hospital, Natchez; Staff of Vicksburg Infirmary, Vicksburg, 7:30 p. m.; Staff of Rush's Infirmary, Meridian, 7 p. m.; Staff of Dr. F. G. Riley's Children and Maternity Hospital and Clinic, Meridian, 7 p. m.

September 3: Pike County Medical Society, McComb, 7:30 p. m.

September 4: Natchez Medical Club, 1 p. m.

September 7: Jackson County Medical Society, 7:30 p. m.; Staff of Jackson County Hospital, 7:30 p. m.; Staff of Meridian Sanitarium, 7 p. m.

September 8: Issaquena-Sharkey-Warren Counties Medical Society, Y. M. C. A., Vicksburg, 7 p. m.; Staff of Natchez Sanatorium, 7 p. m.; Tri-County Medical Society, Monticello, 12 noon; Winston County Medical Fraternity, Louisville.

September 9: Staff of King's Daughters' Hospital, Greenville, 7 p. m.

September 10: Staff of Vicksburg Sanitarium, 6:30 p. m.; Staff of Vicksburg Hospital, 7:30 p. m.

September 11: Staff of Anderson Infirmary, Meridian, 7 p. m.

September 15: Staff of Natchez Charity Hospital, 8 p. m.; North East Mississippi Thirteen Counties Medical Society, 2 p. m.

September 18: Natchez Medical Club, 1 p. m.

October 1: Pike County Medical Society, McComb, 7:30 p. m.

October 2: Natchez Medical Club, 1 p. m.

October 5: Staff of Jackson County Hospital, 7:30 p. m.; DeSoto County Medical Society, Hernando, 10 a. m.; Staff of Meridian Sanitarium, 7 p. m.

October 6: Homochitto Valley Medical Society, Natchez, 1 p. m.; Staff of King's Daughters' Hospital, Brookhaven, 7:30 p. m.; Annual Meeting of 8th Councilor District, Natchez.

October 7: Staff of Chamberlain-Rice Hospital, Natchez; Staff of Vicksburg Infirmary, 7:30 p. m.; Staff of Rush's Infirmary, Meridian, 7 p. m.; Staff of Dr. F. G. Riley's Children and Maternity Hospital and Clinic, Meridian, 7 p. m.

October 8: Staff of Vicksburg Hospital, 7:30 p. m.

October 9: Staff of Anderson Infirmary, Meridian, 7 p. m.

October 10: Staff of Vicksburg Sanitarium, 6:30 p. m.

October 13: Issaquena-Sharkey-Warren Counties Medical Society, Y. M. C. A., Vicksburg, 7 p. m.; Staff of Natchez Sanatorium, 7 p. m.; Winston County Medical Fraternity, Louisville.

October 14: Staff of King's Daughters' Hospital, Greenville, 7 p. m.; Delta Medical Society, Moorhead, 2 p. m.

October 15: East Mississippi Medical Society.

October 16: Natchez Medical Club, 1 p. m.

October 20: Staff of Natchez Charity Hospital, 8 p. m.

November 2: Staff of Jackson County Hospital, 7:30 p. m.; Staff of Meridian Sanitarium, 7 p. m.

November 3: Staff of King's Daughters' Hospital, Brookhaven, 7:30 p. m.

November 4: Staff of Chamberlain-Rice Hospital, Natchez; Staff of Vicksburg Infirmary, 7:30 p. m.; Staff of Rush's Infirmary, Meridian, 7 p. m.; Staff of Dr. F. G. Riley's Children and Maternity Hospital and Clinic, Meridian, 7 p. m.; Clarksdale and Six Counties Medical Society, Clarksdale, 7:30 p. m.

November 5: Pike County Medical Society, McComb, 7:30 p. m.

November 6: Natchez Medical Club, 1 p. m.

November 9: Staff of Vicksburg Sanitarium, 6:30 p. m.

November 10: Issaquena-Sharkey-Warren Counties Medical Society, Y. M. C. A., Vicksburg, 7 p. m.; Staff of Natchez Sanatorium, 7 p. m.; Winston County Medical Fraternity, Louisville.

November 11: Staff of King's Daughters' Hospital, Greenville, 7 p. m.

November 12: Staff of Vicksburg Hospital, 7:30 p. m.

November 13: Staff of Anderson Infirmary, Meridian, 7 p. m.

November 17: Staff of Natchez Charity Hospital, 8 p. m.

November 20: Natchez Medical Club, 1 p. m.

December 1: Claiborne County Medical Society, 3 p. m.; Staff of King's Daughters' Hospital, Brookhaven, 7:30 p. m.

December 2: Staff of Chamberlain-Rice Hospital, Natchez, Staff of Vicksburg Infirmary, 7:30 p. m.; Staff of Rush's Infirmary, Meridian, 7 p. m.; Staff of Dr. F. G. Riley's Children and Maternity Hospital and Clinic, Meridian, 7 p. m.

December 3: Pike County Medical Society, McComb, 7:30 p. m.

December 4: Natchez Medical Club, 1 p. m.

December 7: Jackson County Medical Society, 7:30 p. m.; Staff of Meridian Sanitarium, 7 p. m.; Staff of Jackson County Hospital, 7:30 p. m.

December 8: Joint Meeting of the Fifth District Medical Society of Louisiana and the Issaquena-Sharkey-Warren Counties Medical Society, Vicksburg; Staff of Natchez Sanatorium, 7 p. m.; Winston County Medical Fraternity, Louisville.

December 9: Staff of King's Daughters' Hospital, Greenville, 7 p. m.

December 10: Staff of Vicksburg Sanitarium, 6:30 p. m.; Staff of Vicksburg Hospital, 7:30 p. m.

December 11: Staff of Anderson Infirmary, Meridian, 7 p. m.

December 15: Staff of Natchez Charity Hospital, 8 p. m., North East Mississippi Thirteen Counties Medical Society, 2 p. m.

December 17: East Mississippi Medical Society.

December 18: Natchez Medical Club, 1 p. m.

COMMUNITY HOSPITALS.

During the recent political campaign, many of the many candidates stated that they were in favor of providing free beds for poor patients in every county hospital. Their ideas were somewhat at variance as to detail of ways and means.

At the recent meeting of the State Association at Jackson a resolution was adopted which provided for the appointment of a committee "To inform the public on the importance of this problem during the present campaign, in which a governor and members of the legislature are to be selected; to advise with the offer of assistance to our next legislative body in making the proper distribution of the state charity funds for hospitals; and to see that the hospitals measure up to the standards that will provide safety to the public."

This resolution was adopted without discussion and therefore the members of the House of Delegates, and the profession generally, are uninformed as to what is a proper distribution of the state charity funds for hospitals. In such places as Columbus, Hattiesburg, McComb, New Albany, Oxford and Philadelphia there are two hospitals. Does this committee intend to give to both institutions in these towns? Or if to but one how is the distinction to be made? Would it not be well to publish, at an early date, the standards by which the hospitals are to be measured?

The fund provided by the State at the present for the state charity hospitals is about a dollar a day per patient. The cost of caring for the patient in the small hospitals is not less than four dollars per day. Who is going to put up the other three dollars? Is the State to be asked to adopt a plan of caring for its indigent sick that will cost at least four times as much as its present method is costing?

This is not a defense of the state hospitals as at present maintained. In the first place the five state hospitals are located in a belt that extends from the Mississippi river at Vicksburg and Natchez to the eastern border of the state at Meridian and Laurel, thus leaving the whole northern half and the far southern section of the state out of reach in the case of emergencies. Secondly, for the past twenty-five years or more it has been the custom for each new governor to appoint a new board of trustees for each state institution. For many years it has been an accepted fact that the new board would appoint a new superintendent, who must be a surgeon. It is obvious that these constant changes dictated by political motives have interfered with the building up of an adequate staff at these institutions. As a matter of fact, in the majority of cases the

superintendent has been more interested in doing surgery than he has been in superintending. It is evident, too, that in a hospital of a hundred beds or more where the superintendent in addition to caring for the business management of the hospital, must eat and sleep, it is a physical impossibility to give proper attention to all of the patients in an institution of this size. And it is equally evident that the direction and supervision of an intern staff without the aid of a visiting staff requires just as much of the superintendent's time as if he were to do the work himself.

On the other hand, it is a well known fact that in efficiently managed hospitals the per capita cost per day decreases as the number of patients cared for increases. At the present time much is being said about the cost of diagnosis and treatment, which has already mounted to an alarming figure. Will these small community hospitals be prepared to make a thorough diagnostic study at a cost that may be born by the average man?

The questions asked above, it seems, should be given long and earnest consideration before the committee presents this matter to the Legislature. These smaller hospitals need aid as much as the five state institutions but unless the medical profession is prepared to offer a plan that will work smoothly and fairly for all hospitals and for the public we are more than likely to have forced on us some ill-considered plan prepared by a layman, which may prove to be another path leading to state medicine.

It is suggested that the Committee on Community Hospitals make a study of this matter before the Legislature meets. Let them study the plans for operating hospitals in Texas and Minnesota. With such data in hand this Committee would be in a position to present a bill to the Legislature that should be of real value. But this is of such importance that no report should be made until a modus operandi that will stand the test of time, and that will be fair both to patients and to physicians, shall have been adopted.

J. S. Ullman.

WE ARE MOST HAPPY TO MAKE
THE CORRECTION.

New Orleans Medical and Surgical Journal,
New Orleans, Louisiana.

Dear Sir:—

I notice in the July issue of your Journal that you have me listed among the dead. I would be pleased to know where you got the report that I had passed on. I am very glad to say that I am

still very much alive and on the staff of the South Mississippi Charity Hospital, Laurel, Mississippi.

Very truly,

(Signed) K. R. Commack.

Dr. K. R. Commack,
South Mississippi Charity Hospital,
Laurel, Mississippi.

Dear Dr. Commack:

I am in receipt of a letter from Dr. W. R. Wirth, Editor of the New Orleans Medical and Surgical Journal, enclosing a copy of a letter from you in regard to the reporting in the July number of the Journal the death of Dr. Kossuth R. Commack, Chicora.

The report came to me from the Mississippi State Board of Health.

I am writing to the State Board of Health today that the correction may be made in the records and I shall make the correction in the next number of the Journal. I am certainly delighted to know that the report was not correct.

With all good wishes,

Sincerely yours,

(Signed) Leon S. Lippincott.

cc. to Dr. W. R. Wirth

Dr. F. J. Underwood.

MONROE COUNTY.

No, I am not on a vacation—money too scarce.

My stock of energy has been at ebb-tide. My brain has been stupefied by the oppressive heat. My secretary has been fully occupied meeting and shunting candidates, county and state. My typewriter does not function automatically. Besides all this, news might be interesting to your readers has been lacking. There have been no deaths, serious sickness nor marriages in the homes of any of our county members.

One thing I might mention is the fact that one of our most deserving and popular members has been given a scholarship in a postgraduate course—namely Dr. B. C. Tubb of Smithville. This scholarship is one of five allotted to Mississippi by a fund in New York. The course is for four months and to be taken at Tulane.

Speaking of vacations I will say that only one of our fraternity in this county has indulged in such a luxury,—namely, Dr. M. Q. Ewing. He is away at present, perhaps at Miami or Savannah. I think he stated that there is nothing doing in his line and that he can live as cheaply one place as another. Really I think the supply of appendices has been exhausted by him, Dr. Philpot and Dr.

Kirk of Tupelo. They may have to wait until another crop is grown. However, I discovered one individual in the person of a beautiful young lady who has escaped so far. I advised and persuaded her to hold hers fast for awhile longer, reminding her that the right ureter was in such close proximity to the appendix that not every right abdominal distress was due to a "chronic" appendix. In fact I told her that I had heard one of the nation's surgical authorities express doubt as to there being such an entity as a chronic appendix. I have run out of soap—goodbye.

G. S. Bryan, County Editor.

DR. I. T. WOODRUFF.

Dr. I. T. Woodruff, graduate of Memphis Hospital Medical College, class of 1893, died July 11, at his residence near Courtland. The cause of death was pulmonary tuberculosis, from which he had suffered for about twenty years.

Dr. Woodruff practiced medicine a few years in DeSoto County, but most of his professional career was spent in his native county, Panola, practicing in Courtland, then moving to Batesville several years ago, where he lived until his health failed and he moved to his farm near Courtland.

Dr. Woodruff made numerous friends among his large practice and his death is mourned by all. He leaves a devoted wife, one brother, and several sisters who miss his kindly presence among them.

G. H. Wood, County Editor.

HISTORY OF THE MISSISSIPPI STATE MEDICAL ASSOCIATION (Continued).

Any additions or corrections will be appreciated by the Historian, Dr. E. F. Howard.

1913.—The following year we find the Association preparing to honor a former member who, since leaving Mississippi, had been successful in throwing additional light on a problem peculiarly interesting to the South. Dr. C. C. Bass' recent studies of the malarial parasite and his application of the information thus acquired in the control of the disease had added materially to our knowledge and in recognition of his services the Association voted him a medal, which was presented at the 1914 meeting by Dr. J. S. Ullman.

1914.—At the forty-seventh Annual Session efforts were made to abandon the Insurance Resolutions passed in 1907 and to abolish the defense feature established in 1911, but both rode the storm successfully.

An interesting bit of attempted discipline was shown in the introduction of a motion declaring

vacant the office of Councilor in three districts, for failure in the performance of duty.

A well-deserved tribute was paid the Association's best beloved member by electing Dr. H. L. Sutherland of Rosedale an honorary member, the first to be so honored.

1915.—The 1915 Annual Session, held in Hattiesburg, is chiefly of note in that then was first agitated the question of a State Hospital for tuberculous patients. A general committee was appointed to present the matter to the Legislature and given full authority to invoke the support of the Association, through the county societies.

An interesting example of the power of organized medicine is shown in the reports of the Council. The Secretary of the Southern Medical Association had been extremely lax in the matter of requirements for membership in that body, accepting Mississippi physicians who were not members of the State Association. Complaint having been filed, the Southern's Secretary admitted jurisdiction of the State Council and, proof having been made, agreed to comply with regulations in future.

The chief attraction of this meeting was the presence of Dr. Rudolph Matas of New Orleans who appeared before the surgical section and also delivered the oration, choosing as his subject one on which he was eminently qualified to speak: "The Soul of the Surgeon."

LOWNDES COUNTY.

Dr. C. E. Lehmberg, Captain, Medical Department, 178th Field Artillery, has just returned from encampment at Camp Knox, Kentucky.

Dr. E. Q. Withers and wife are enjoying a vacation on the Caribbean Sea. Dr. Withers is eye, ear, and throat man of the Fite Hospital staff.

Dr. John E. Davis left a few days ago for New York City where he expects to combine business with pleasure.

Dr. Eli Staton of the Columbus Hospital staff has returned with Mrs. Staton from a pleasant vacation.

The North East Mississippi medical men are proud of the selection of Dr. J. M. Acker of Aberdeen to be president of the Mississippi Medical Association and predict for him a most creditable administration.

J. W. Lipscomb, County Editor.

PIKE COUNTY.

Dr. L. D. Dickerson, proprietor and manager of the McComb City Hospital, died June 4, last. Immediately following the death of Dr. Dickerson, Mrs. Dickerson, even with her grief-laden heart,

took over the management of the hospital, and while no one could fill Dr. Dickerson's place in the hospital any more than they could fill his place in his church, and in the community, she has certainly caused harmony and good fellowship among the doctors connected with the hospital, and among the patrons of the hospital, to be the ruling "Key-stone."

Dr. R. H. Brumfield, our very efficient Secretary of the Pike County Medical Society, will leave August 6, for Rochester, Minn., where he will spend the next three or four weeks attending the Mayo Clinic.

The June meeting of the Pike County Medical Society would have been on Thursday, June 4, but as this was the day that Dr. L. D. Dickerson died, the President had the Secretary call the meeting off. The membership roll still represents 100 per cent of the practicing physicians of Pike County. We have 24 active members in the Society. At the July meeting, which was held on July 2, there were present, 21 members. This, of course, included the two new members who joined the Society that night. Of course, we don't have as large attendance at every meeting, yet I think we still hold the Blue Ribbon for membership roll percentage and for attendance average.

The Pike County Health Unit, under the supervision of the "Commonwealth Fund" and with Dr. T. Paul Haney as director, opened for business on July 1, with headquarters at McComb, and offices on the second floor of the city hall.

Everyone is expecting the health unit to accomplish great good, and they should if they get the right sort of co-operation from the doctors of Pike County, and they will get it—if they give that kind, and I am sure they will. The doctors of Pike County are just that kind of fellows, finest set of men to be found anywhere.

You know, if one will watch as one goes along through life, one will find, with possibly a few exceptions, that one usually gets back just about the kind that one gives out.

I. E. Stennis,

President, Pike County Medical Society.

PONTOTOC COUNTY.

Dr. W. R. Card of Heth, Arkansas, has recently moved to Pontotoc County and is located at Houlka, Route 5.

R. P. Donaldson, County Editor.

BOLIVAR COUNTY HEALTH DEPARTMENT.

Dr. L. B. Austin, member of the Mississippi State Board of Health for the third district, has

recently received the biennial report of the Department of Health of Bolivar County as prepared by Dr. R. D. Dedwylder, Director.

The report contains some very interesting information in regard to the County, its location and natural advantages, population and distribution, race proportions, industries, drainage, roads, educational advantages, and enrollment in schools.

The Bolivar County Health Department was organized in July 1920, and has been well supported. At present the staff consists of the Director, Dr. Dedwylder, two nurses, bacteriologist, technician, inspector, part time engineer, and a nurse and inspector paid for by the United States Public Health Service. Due to economic conditions, anti-mosquito work has been discontinued.

Educational activities for the two years include 441 lectures: public lectures, 91, and school lectures, 350; bulletins distributed, 5,276; newspaper articles published, 89; letters and notices, 4,926; reports of all kinds, 1,506; conferences, 136; other activities, 4,936. The total attendance at lectures was 19,961.

In the control of communicable diseases 610 general examinations were made, 487 visits were made, 7 carriers were isolated and 133 contacts quarantined. For venereal disease, 1,500 suspects were examined and 770 treatments given to indigent cases. A total of 3,486 Schick tests were made of which 841 were positive. Forty Dick tests were made of which 8 were positive. For the control of bovine tuberculosis 957 cows were tested. For immunization 9,147 doses of toxin-antitoxin mixture were given; 55,667 doses of typhoid vaccines were given; 3,729 smallpox vaccinations were made; and 215 doses of anti-rabies vaccine were administered.

The laboratory of the health department is constantly used by all the physicians of the county.

The special anti-malaria campaign which it was necessary to discontinue, included the use of a spot map of malaria foci and the organization of mosquito control work. Screening of tenant rural homes has been urged and 536 recorded houses have been screened and 1,946 standard doors installed. A part time engineering service provides for the promotion of minor drainage. This work is very popular and the call for the services of the engineer is constantly increasing.

VIKSBURG SANITARIUM AND CRAWFORD STREET HOSPITAL.

The regular monthly meeting of the staff of the Vicksburg Sanitarium and Crawford Street Hospital was held on August 10, with nine members of the staff and eight guests present.

After the business of the staff and reports from the records department and analysis of the work of the hospital, the following special reports of current cases were presented:

1. Pylephlebitis with Multiple Liver Abscesses Following Suppurative Appendicitis.—Dr. G. M. Street.
2. Carcinoma of the Stomach.—Dr. A. Street.
3. Brain Tumor.—Dr. J. A. Birchett, Jr.
4. Osteomyelitis, Acute.—Dr. G. C. Jarratt.
5. Melanoma.—Dr. Walter Johnston.

Selected radiographic studies were demonstrated as follows: Pulmonary tuberculosis, cholelithiasis, nephrolithiasis, tumor of kidney.

Drs. S. W. Johnston and Walter Johnston presented a moving picture on spinal anesthesia.

The meeting closed with a lunch.

WINSTON COUNTY.

The Winston County Medical Fraternity meets the second Tuesday night of each month.

Dr. R. L. Donald of Louisville, who came here the first of last month, was mentioned in last locals as having with him a wife. In justice to Dr. Donald we are pleased to correct this mistake, as he is a single man.

Drs. Hickman and Hickman are adding to their office accommodations and preparing to meet any work that may come to them.

Distressingly healthy times in this section are giving the doctors a time to rest and relax.

We notice with disapproval a political reflection on our good servant and friend, Dr. Willis Walley of Jackson. We are not concerned as to his political alignment, but commend him most highly as a surgeon in the capacity he now occupies, superintendent of the State Charity Hospital at Jackson. We have depended upon these institutions to do all of our charity surgery for a period of twenty years, and Dr. Walley has given service second to none.

M. L. Montgomery, County Editor.

ADAMS COUNTY.

Dr. and Mrs. W. K. Stowers are visiting on the Mississippi coast and in Florida.

Dr. J. S. Ullman has returned from a week-end visit to Gulfport.

Dr. H. M. Smith, who for the past month has been at Rochester, Minnesota, for specialized work at the Mayo Clinic, has returned to resume his practice.

L. Wallin, County Editor.

WARREN COUNTY.

Dr. M. H. Bell is enjoying his vacation; his health is improving quite markedly.

Dr. and Mrs. L. J. Clark enjoyed a few days at the Mayo Clinic and in Chicago recently.

Dr. Henry B. Goodman, son of Dr. H. S. Goodman, Cary, is connected with the staff of the Mississippi State Charity Hospital at Vicksburg.

Dr. Nathan Lewis has entered private practice, being associated with Dr. B. B. Martin.

Dr. and Mrs. Preston S. Herring are being congratulated upon the arrival of a little girl.

Edley H. Jones, County Editor.

DEATHS OF MISSISSIPPI PHYSICIANS.

Wilson R. Eatherly, Winterville; diabetes mellitus; July 7, at Winterville. Born Leeville, Tenn., Feb. 14, 1857.

L. L. Greer, McComb; appendicitis; July 11, at McComb. Born Ruth, Dec. 16, 1880.

I. T. Woodruff, Batesville; pulmonary tuberculosis; July 11, at Courtland. Born Panola, Oct. 17, 1870.

Francis V. McRee, Brookhaven; cancer; July 17, at Brookhaven. Born Mississippi, 1871.

William Tillman Duke, Glen Allen; sudden death; July 23, at Galveston, Texas. Born Mississippi, 1890.

James B. Britt, Blue Mountain; heart attack; July 28, at Blue Mountain. Born Clarysville, June 10, 1876.

HOMOCHITTO VALLEY MEDICAL SOCIETY.

On Oct. 6, at Natchez, the Homochitto Valley Medical Society will be host to the Tri-County and Pike County Medical Societies for the meeting of the Eighth Councilor District, which is made up of the counties of Adams, Amite, Copiah, Franklin, Jefferson, Lawrence, Lincoln, Pike, Walthall and Wilkinson.

Drs. Isadore Cohn, New Orleans; T. B. Sellers, New Orleans, and Alphonse H. Meyer, Memphis, are the essayists which assures a program of unusual interest.

Dr. H. M. Smith, Natchez, spent the month of July at the Mayo Clinic, Rochester, Minn., and stopped at Birmingham a few days on his way home to visit the clinic of Dr. Seale Harris.

Dr. J. Dunbar Shields, Pine Ridge, is in the lead as he enters the second primary campaign as candidate for Adams County representative to the State Legislature. J. S. Ullman.

ISSAQUENA-SHARKEY-WARREN COUNTIES MEDICAL SOCIETY.

The regular monthly meeting of the Issaquena-Sharkey-Warren Counties Medical Society was held at the Y. M. C. A., Vicksburg, August 11, with 19 members and 10 guests present. The scientific program included the following:

1. Diphtheria.—Dr. A. K. Barrier, Rolling Fork. Discussed by Drs. F. M. Smith, L. S. Lippincott, E. F. Howard, H. H. Haralson, J. E. Quidor, G. M. Street, all of Vicksburg, and R. H. Foster, Anguilla. Dr. Barrier closed.

2. Nephrolithiasis.—Dr. G. P. Sanderson, Vicksburg. Discussed by Drs. W. H. Parsons and J. A. K. Birchett, Jr., of Vicksburg. Dr. Sanderson closed.

Drs. William Graham Weston, Vicksburg Hospital; Nathan B. Lewis, Vicksburg Infirmary, and Henry Brown Goodman, Mississippi State Charity Hospital, were elected to membership in the society.

Drs. S. W. Johnston and Walter Johnston presented a moving picture, "Spinal Anesthesia."

Drs. M. H. Bell and C. J. Edwards of Vicksburg were reported ill.

The committee, consisting of Drs. W. H. Parsons, Vicksburg; J. B. Benton, Valley Park, and W. C. Pool, Cary, appointed at the last meeting, to investigate the activities of all agencies practicing medicine in the three counties of Issaquena, Sharkey, and Warren, that are financed either in whole or in part from the public funds, in an effort to determine, if, and to what extent these activities are infringing on the rights and just privileges of private physicians, made its report, which included the following:

"The administration of neocarsphenamine, therefore, we consider to be practicing curative medicine. We find that in the Counties of Issaquena and Sharkey the County Health Officer administers this drug upon written order of any physician practicing in those counties. In the year 1930, 541 doses were given. We disapprove of the practice of a county health officer giving this drug and we feel that in this particular instance, the rights and privileges of private physicians are being infringed upon. In justice, however, to the State Board of Health, we must state that the said county health officer of Sharkey and Issaquena Counties gives these injections only upon

written order of a physician of these respective counties. We feel, however, that the State Board of Health should instruct its county health officer to discontinue the administration of neoparsphenamine and we feel that the physicians of Sharkey and Issaquena Counties should discontinue requesting their health officer to give these injections. We have found no instance in Warren County of neoparsphenamine having been given by its health officer.

"Regarding the treatment of pellagra, we are informed by Dr. F. J. Underwood, Dr. A. K. Barrier and Dr. F. Michael Smith that pellagrins are given a diet list and given yeast. We believe this to be practicing curative medicine and we believe this practice to infringe upon the rights and privileges of private physicians. We recommend that the treatment of pellagra be discontinued. We do not, however, wish such recommendation to be construed as opposing educational work in this field.

"We find that school children are examined in all of the three counties and this examination, so far as we have been able to determine, comprises examination of the eyes, ears, throat, heart and lungs and a general survey of the nutrition of the child. If this work is confined strictly to determining if defects exist and in the event they do, recommending to the parents that they consult whatever reputable physician they chose, we see no objection to this practice except that inasmuch as examinations are not thorough, it should be clearly stated to the parents or responsible person that the examination is cursory in nature and does not necessarily mean that there are no defects present.

"We find that in all three counties physical examinations are made of food handlers and of barbers. We recognize the necessity of these examinations being made and approve of this, but we feel that the cost of them if made by private physicians would be in the nature of an occupational tax that would be entirely proper and by no means prohibitive."

The report was adopted and the committee discharged.

The meeting closed with a Dutch lunch.

BOLIVAR COUNTY.

Dr. E. R. Nobles, Rosedale, attended a meeting of the Committee of the Mississippi State Medical Association on Community Hospitals held in Jackson in July.

Dr. S. W. Colquitt, Beulah, spent his vacation in Magnolia, Stamps, and Hope, Arkansas, mingling with relatives and boyhood friends.

Dr. J. E. Williams, Benoit, must have been ill during the month of July as he was absent at one dance. Hope he has recovered.

Dr. C. W. Patterson, Rosedale, was called to the bedside of his mother who is critically ill and not expected to recover.

The next meeting of the Delta Medical Society will be at Moorhead, October 14, at 2 P. M.

C. W. Patterson, County Editor.

PONTOTOC COUNTY.

Beginning July 20, last, Dr. J. R. McCord of Emory University, Atlanta, gave a five day lecture series on the general subject of obstetrics under the direction of the Mississippi State Board of Health, at the Methodist Church, New Albany. Lectures began at two P. M. and lasted until five P. M. In all, twenty-six doctors from the surrounding counties attended. Pontotoc County had three doctors in attendance. They were Dr. Z. A. Dorsey, Troy; Dr. J. H. Windham, Ecu, and Dr. Eliam B. Burns, Ecu. These lectures were concise but comprehensive. They covered normal and pathological obstetrics. This was a very helpful course and will serve to raise the standard of obstetrical practice in this part of the State. We were very fortunate in getting this fine set of lectures from the State Board of Health.

There is no sickness of any consequence among our doctors to report.

Most of us are recovered from the severe attack of "politicitis" which has had us for the last several weeks. Soon we will return to the normal again.

Eliam B. Burns, County Editor.

YAZOO COUNTY.

Election is over and everything quiet. Dr. H. L. McCalip, Yazoo City, has just returned from a two weeks' trip with the National Guard at Camp Beauregard, Louisiana.

Drs. Darrington, Swayze, W. D. McCalip, Coker, and Roberts attended the recent joint meeting of the Central Medical Society and the Issaquena-Sharkey-Warren Counties Medical Society at Vicksburg. Had a good time. Dr. John Darrington made a short visit to Dr. Smithson, who is convalescing, we are glad to hear. Hope for a speedy recovery.

C. M. Coker, County Editor.

JACKSON.

Dr. H. R. Shands is taking his vacation in California. At last accounts, he was at Hollywood. We do not know whether he expects to appear in the "movies" or not.

Dr. Frank L. Van Alstine is taking his vacation at Colorado Springs, where he will spend the summer months in recuperating.

Dr. G. C. Russell is taking his vacation at the Mayo Clinic, where he will study some of the newer methods in surgery.

Dr. A. E. Gordin has recently returned from an extensive trip to Cuba and the West Indies, where he was the recipient of many courtesies from officials and doctors.

Dr. J. P. Wall and Miss Sarah King were married on July 25 and left for an extensive tour of European countries. They will visit the former battle fields where Dr. Wall saw service, and Mrs. Wall's relatives in Ireland, where she was born.

Dr. H. R. Hays and Dr. L. W. Long have recently returned from Camp Beauregard, where they attended the officers' training school. They look sunburned and hearty and report that army life in a training camp is a great vacation.

Dr. Brister Ware, University of Mississippi and Jefferson Medical College, who has spent the last two years as an interne in the Louisiana State Charity Hospital, has located here for the practice of general surgery and gynecology. His office is in the Standard Life Building.

Dr. L. V. McCarty, University of Mississippi and Emory University, who spent the last year as an interne at Touro Infirmary, has opened an office in the Standard Life Building, and will engage in general practice.

Dr. Van Dyke Hagaman, University of Mississippi and Vanderbilt, who spent an internship at Crile's Clinic, in ear, nose and throat work, is associated with the State Charity Hospital temporarily.

Several of our doctors are on the sick list. Dr. J. E. McDill is at the Baptist Hospital, undergoing repairs; Dr. L. B. Neal is at home recuperating from an overtaxed heart; Dr. William W. Smithson is at the Jackson Infirmary recuperating after a serious operation.

Mrs. F. E. Werkheiser is at the Willis Walley Hospital very seriously ill but her physicians report some improvement at this writing.

D. W. Jones.

LECTURES ON OBSTETRICS.

By arrangement of the Mississippi State Board of Health with the Children's Bureau of the United States Department of Labor, lecture courses in obstetrics have been made available to the doc-

tors of the State this year. The lectures are given by Dr. James R. McCord, Professor of Obstetrics at Emory University, Atlanta, Ga., and profusely illustrated by slides and remarkably fine motion pictures.

The first course of lectures was given at New Albany, July 20 to 24, with the following in attendance: Drs. E. B. Burns, Ecru; J. I. Mayfield, Blue Mountain; R. B. Cunningham, Booneville; W. C. Hays, Sherman; C. M. Murry, Ripley; S. E. Eason, New Albany; H. P. Boswell, New Albany; R. H. Adams, Ripley; C. M. Speck, New Albany; Frank Ferrell, Ashland; R. A. Holcomb, Hickory Flat; Z. A. Dorsey, Troy; Jessie Mauney, Blue Mountain; W. F. Coleman, Hickory Flat; Joseph J. MacGowan, Ashland; I. B. Trapp, New Albany; J. W. Williams, Ingomar; H. G. Waldrop, Dumas; A. V. Murry, Ripley; E. H. Wesson, New Albany; G. F. Cullens, Wallerville; J. H. Windham, Ecru; T. J. Pennebaker, Cotton Plant; H. A. Stokes, Guntown; J. H. Giles, Ripley; Roy Gilmer Grant, Holly Springs.

The second course of lectures was given at Vicksburg August 3 to 7, with the following in attendance: Drs. H. S. Goodman, Cary; J. S. Ewing, Vicksburg; W. C. Pool, Cary; Felix J. Underwood, Jackson; S. Myers, Vicksburg; J. A. K. Birchett, Vicksburg; M. J. Few, Rolling Fork; C. C. Applewhite, Jackson; A. K. Barrier, Rolling Fork; T. B. Owen, Hollandale; W. P. Shackelford, Hollandale; R. H. Foster, Anguilla; L. Stevens, Tullulah, La.; G. W. Gaines, Tullulah, La.; F. M. Smith, Vicksburg; C. L. Simmons, Hazelhurst; L. S. Lippincott, Vicksburg; J. S. Davidson, Vicksburg; Sidney W. Johnston, Vicksburg; H. B. Goodman, Vicksburg; V. O. Stewart, Anguilla; W. H. Scudder, Mayersville; A. M. Ragan, Edwards; Joseph Whitaker, St. Joseph, La.; E. B. Stribling, Rolling Fork; B. B. Martin, Vicksburg; F. A. Thomas, St. Joseph, La.; N. B. Lewis, Vicksburg; C. F. Clayton, Jr., Vicksburg; C. B. Flinn, Hernando; R. N. Whitfield, Jackson; Preston Herring, Vicksburg; A. T. Palmer, Tullulah, La.; and medical students, D. S. Hall and B. B. Martin, Jr., Vicksburg.

Other courses now planned for Mississippi are in the weeks of August 24, September 28, October 12, November 2, and December 7. If these lectures which really amount to a post-graduate course are successful, it is planned next year to bring to Mississippi a nationally known pediatrician for similar courses. There is no fee to physicians.

The obstetrical lectures cover the following subjects: Monday—Mechanism and Management of

Normal Labor; Management of the Puerperium. Tuesday—The Toxemias of Pregnancy (Eclampsia, Chronic Nephritis); Prenatal Care. Wednesday—Puerperal Sepsis; Syphilis and Pregnancy. Thursday—Breech Presentation; Version; Forceps. Friday—Abortion; Placenta Previa; Accidental Separation of the Placenta.

FELLOWSHIPS AND SCHOLARSHIPS.

The Mississippi State Board of Health has arranged for 15 four months fellowships for practicing physicians of the State. These fellowships pay each physician chosen \$1,000 plus tuition and expenses to Tulane Graduate School of Medicine, and return, and are given by the Commonwealth Fund. Arrangements have also been made for five undergraduate medical scholarships for the sons of physicians and others, these scholarships to pay \$100 a month for four years plus tuition, which will easily amount to \$1800 during the four years course and making each scholarship worth practically \$7,000. This program has been promised for a minimum period of ten years and may be extended to fifteen. These fellowships and scholarships, with \$25,000 each year paid to Tulane University to take care of Mississippi graduate and undergraduate scholarships by the Commonwealth Fund will amount to more than a million dollars for medical education in Mississippi during the next ten years.

The following six young men have been awarded scholarships to enter Tulane School of Medicine this Fall: James G. Blaine, Clinton; Edwin M. Meek, West Point; Aubrey V. Beacham, Hattiesburg; Paul Rogers Googe, Booneville; Onie P. Myers, Collinsville, and Russell L. Welch, Norfield.

The undergraduate scholarships and postgraduate fellowships awarded have nothing to do with public health but are simply straight-out medical courses. The men awarded the postgraduate courses will take the subjects most useful to them in their practice. The only purpose the State Board of Health and the Commonwealth Fund have in awarding these fellowships is to be of assistance to the physicians of Mississippi many, of whom are unable to pay for postgraduate courses themselves, and to improve the standards of medical practice in the State.

COMMUNICABLE DISEASES.

The Bureau of Communicable Diseases of the Mississippi State Board of Health reports for the month of June, typhoid fever, 101 cases; smallpox, 143; diphtheria, 22; epidemic cerebrospinal meningitis, 5; pellagra, 2184; tuberculosis, 163. Now is the time to urge and to administer typhoid vaccine, smallpox vaccine, and toxin-antitoxin mixture or toxoid.

HONOR ROLL FOR SEPTEMBER.

The following are contributors to the Mississippi Section this month: C. M. Speck, J. S. Ullman, K. R. Commack, G. S. Bryan, G. H. Wood, E. F. Howard, J. W. Lipscomb, I. E. Stennis, R. P. Donaldson, L. B. Austin, M. L. Montgomery, L. Wallin, E. H. Jones, F. J. Underwood, C. W. Patterson, E. B. Burns, C. M. Coker, D. W. Jones, J. C. Pegues, E. E. Benoist, T. H. Rayburn, A. Street, J. A. K. Birchett, Jr., G. C. Jarratt, W. E. Johnson, R. C. Finlay, T. L. Bennett, L. L. Minor, O. N. Arrington, Albert Hand, G. W. Acker, J. N. Rape, J. M. Acker, Jr., W. K. Stowers, R. H. Brumfield, A. H. Little.

Your editors thank you.

MISSISSIPPI STATE BOARD OF HEALTH.

Miss Augustine B. Stoll, R. N., of New York, began work with the Mississippi State Board of Health on July 15. Miss Stoll has had much valuable training and experience. She was on the staff of Bellevue Hospital, New York City, did rural public health nursing in New York, and for several years was Supervisor of Child Welfare Work in Czechoslovakia. She was on the staff of the Mexico Association in charge of Indian Affairs and as a nurse worked with the Indians for four years. Miss Stoll has just completed a postgraduate course in public health nursing at Columbia University and the State Board of Health considers itself fortunate to be able to secure her services.

Dr. J. H. Janney, Director of the Training Station for Health Workers at Indianola, Mississippi since 1928, has been transferred by the Rockefeller Foundation to Maryland. Dr. Chas. A. Bailey, formerly representative of the Foundation at

Paris, France is now in charge of the Training Station.

Dr. Henry Daspit, Dean of the Tulane Graduate School of Medicine, New Orleans, was a visitor at the State Department of Health offices on August 12. Dr. Daspit's visit was for the purpose of discussing details relative to the postgraduate fellowships which have been awarded to fifteen Mississippi physicians under the Commonwealth Fund's plan of co-operation with the State Board of Health.

Prof. Wm. F. Wells of Harvard University, Boston, spent two weeks with the State Board of Health during the month of July. Prof. Wells was especially interested in rural sanitation and malaria control activities of the Mississippi Health Department, and spent most of his time in the Delta with the full-time health departments which have excellent programs along the lines mentioned.

Dr. W. A. Davis, State Registrar of Vital Statistics, Austin, Texas, visited the State Board of Health offices on August 17 for the purpose of studying the new indexing method used by the Mississippi Bureau of Vital Statistics.

Mr. H. R. Fullerton and Mr. M. F. Wooten, Jr., sanitary engineers, Division of Malaria Control of the Tennessee State Board of Health, spent the week of August 17 in the Delta section of Mississippi. Their visit was for the purpose of making observations of the Mississippi State Board of Health malaria control activities with special reference to the program and results accomplished by minor drainage in that section of the State.

Other visitors to the State Board of Health for the purpose of studying and observing health work in Mississippi were as follows: Dr. Frank Bane, State Commissioner of Public Welfare of Virginia; Dr. John E. Monger, Columbus, Ohio; Dr. C. P. Coogle, Malariologist, U. S. Public Health Service, Memphis, Tennessee; Mr. N. M. Cregor, Vice President, Vitamin Food Company, New York, N. Y.; Mr. Herbert Wilson, Washington, D. C.; Dr. Jos. W. Mountin, U. S. Public Health Service, Washington, D. C.; Dr. L. L. Lumsden, Medical Officer, U. S. Public Health Service, Washington, D. C.; Dr. Taliaferro Clark, Representative, Julius Rosenwald Fund, U. S. Public Health Service, Washington, D. C.

A COMMUNICATION.

Dr. Leon S. Lippincott, Secretary
Issaquena-Sharkey-Warren Counties
Medical Society
Vicksburg, Mississippi.

Dear Dr. Lippincott:

Agreeable to my promise to you the other night, I am enclosing a copy of American Medical Association resolution. Under this resolution, Dr. Barrier has not been guilty of over-stepping his bounds for the reason that the physicians within his jurisdiction had a meeting more than a year ago agreed upon the program which he has carried out since that time.

While the resolution passed by the Issaquena-Sharkey-Warren Counties Medical Society at its last meeting is in line with the general policy of the State Board of Health, I feel that if it is published in the New Orleans Medical and Surgical Journal without the American Medical Association's definition of "state medicine" and without an explanation that the physicians within Dr. Barrier's jurisdiction met and agreed upon a plan whereby he was to treat indigent cases of syphilis, that it would be unfair and unjust to the Issaquena-Sharkey Counties Health Officer and to the State Board of Health.

Dr. Benton of Issaquena County and Drs. Goodman and Pool of Sharkey County all stated at the Committee Hearing on August 6 that Dr. Barrier was doing exactly what the local medical group in Sharkey and Issaquena Counties had agreed for him to do and that they had no criticisms to offer.

* * * * *

With best wishes, I am

Very truly yours,

(Signed) Felix J. Underwood.

THE DEFINITION.

"'State medicine' is hereby defined for the purpose of this resolution to be any form of medical treatment, provided, conducted, controlled, or subsidized by the federal or any state government, or municipality, excepting such service as is provided by the Army, Navy, or Public Health Service, and that which is necessary for the control of communicable disease, the treatment of mental disease, the treatment of the indigent sick, and such other services as may be approved by and administered under the direction of or by a local county medical society of which it is a component part.—Resolution passed by the American Medical Association at its annual meeting in 1922."

BOOK REVIEWS

Text Book of Physical Therapy: By William Benjamin Snow, M. D. New York, New York Scientific Authors' Publishing Company. 1931. pp. 708.

This book presents an enormous amount of material, and is divided into 3 sections. The first section, "Constant Current and Static Current," has 20 chapters dealing with the application of this kind of current in the treatment of disease.

The second section, "High Frequency Currents," explains the development, physics, physical effects, physiological effects, and the therapeutics of high frequency current in its application in the treatment of many diseases. There are 15 chapters to this section.

The third section, "Electrosurgery," elaborates upon the development and accomplishments of electrosurgery and includes its application to the treatment of diseased tonsils, hemorrhoids, etc. There are 8 chapters in the last section of this book.

According to the text, nearly every known disease is susceptible of treatment by physical therapy.

LEON J. MENVILLE, M. D.

Textbook of Histology: By Eugene C. Piette, M. D. Philadelphia, F. A. Davis Company. 1931. pp. 466.

The reader of this work will be impressed by the compactness of its treatment of histology, and by the manner in which both practical applications of this subject and the correlation of structure and function are introduced. Dr. Piette has sought to make a concise text, and this he has done without injecting the atmosphere of a compend. It is distinctively a *practical* textbook, and it may be noted that the author's association with pathology is of eminent importance in this connection. The typographical arrangement, including headings and bold-faced printing of key words, provides an effective aid in reading.

HAROLD CUMMINS, Ph. D.

Preparation of Scientific and Technical Papers: By Sam F. Trelease and Emma S. Yule. Baltimore, Williams & Wilkins. 1930. pp. 117.

This handbook, a reprint of the second edition (1927), is a convenient and very valuable guide to the writing of a paper in any field of the exact

sciences. Though primarily designed for the use of students, the book will be equally serviceable as a reference book to the professional man who has occasion to do scientific writing.

CHARLES MIDLO, M. D.

Streptococcic Blood Stream Infections: By George E. Rockwell. New York, Macmillan Company. 1931. pp. 73.

In this treatise the author has succeeded in giving a succinct account of the phases of physiology, pathology, chemistry, and bacteriology concerned in streptococcic blood stream infections. The facts derived from these basis sciences are then lucidly applied to explain the rationale of the measures employed in the diagnosis, management, and treatment of the streptococcic blood stream infections.

In an appendix, the intravenous use of mercurochrome, gentian violet, and sodium ricinoleate is critically reviewed.

There is a comprehensive index.

CHARLES MIDLO, M. D.

Introduction to Medical Biometry and Statistics: By Raymond Pearl. 2nd rev. ed. Philadelphia, W. B. Saunders Co. 1930. pp. 459.

A second edition of a book already considered a medical classic. It is of inestimable value to one interested in the quantitative aspects of the medical subjects and statistical studies. Its one unfortunate circumstance is the great amount of mathematics and mathematical formulae necessarily employed but which is *terra incognita* to the majority of physicians.

I. L. ROBBINS, M. D.

Abdomino-Pelvic Diagnosis in Women: By Arthur John Walscheid, M. D. St. Louis, C. V. Mosby Company. 1931. pp. 1000.

In his text Dr. Walscheid steps out of the usual form of texts, and approaches the subject from a different point of view. Part one deals with anatomical considerations, normal and abnormal. The chapter on anthropology, as a rule not considered in texts on gynecology, is fully covered.

The systematic arrangement of a part dealing with general causal factors, pathologic processes, symptoms and diagnosis and the second part dealing with individual organs from the standpoint

of pathology and diagnosis, together with illustrative cases makes it an excellent reference text. It will be observed that only allusions are made to some special treatments but an attempt is made to consider this point of view. There are a good many illustrations to emphasize pathological specimens.

ADOLPH JACOBS, M. D.

The Criminal, the Judge and the Public: By Franz Alexander, M. D., and Hugo Staub. New York, The Macmillan Co. 1931. pp. 238.

The title of this book for review could well be termed "The Mind and the Law." This is written in two parts and translated from the German by a graduate physician, psychoanalyst, and an attorney-at-law.

Apparently very little has been lost in the translation as regards subject matter. For the most part it is in an entirely psychoanalytic vein with interpretations, explanations and descriptions in keeping with psychoanalysis. It is decidedly socio-medico-legal in context. The criminalistic tendencies in the normal and the criminal are microscopically examined. There is much concerning the application of justice to these cases and the methods, means and manner by which they may be approached. The question of sexual psychopathy is entered into (the examiner thinks this a more scientific term to use), with great detail and should be instructive to the lawyer as well as those heading social problems.

Then follows a description of celebrated cases in which psychoanalysis was used to aid them in their difficulties and then follows psychology of punishment. This is replete with psychoanalytic explanations.

Psychiatrists, alienists should do well to read this. It should likewise make substantial collateral reading for child guidance directors and mentally equipped social workers.

The question of analysis of the subject, in the examiner's opinion, should only be done by a graduate, qualified physician, preferably in all instances a psychiatrist.

WALTER J. OTIS, M. D.

The Infant Welfare Movement in the Eighteenth Century: By Ernest Caulfield, M. S., M. D., with a Foreword by Dr. G. F. Still. New York, Paul B. Hoeber, Inc. 1931. pp. 203.

This is a well written volume, in narrative form, which covers the important events of the infant welfare movement in London during the eighteenth century.

The book is particularly interesting, due primarily to the fact that it covers the peak in the dark ages of pediatrics and the descent of enlightenment begins. The manifest indifference, cruelty and unconcern towards children, as revealed by this story, is barely believable, even though the time was two hundred years ago. Casting off the shackles of such an attitude that was due to ignorance required the concerted action of great men. The call was ably answered by such men as Coram, Cadogan, Hanway and Armstrong.

I can heartily recommend this book to any one interested in the evolution that has taken place, or should we say the *revolution* that took place in eighteenth century pediatrics of London. It would be a valuable book to any one making a comparative study of the transition that has come about in infant welfare work.

C. T. WILLIAMS, M. D.

Eye, Ear, Nose and Throat for Nurses: By Jay G. Roberts, Ph. G., M. D., F. A. C. S. Philadelphia, F. A. Davis Co. 1931. pp. 213.

This is a useful little book for the nurse to refer to for general information about the eye, ear, nose and throat. The illustrations are valuable for familiarizing the nurse with instruments used in this surgical specialty.

The author advises the use of chloroform anesthesia for tracheotomy in children. This is at variance with the general opinion which demands local anesthesia in *any* patient so dyspneic as to be using his accessory (voluntary) muscles of respiration. Obviously, if these are paralyzed by a general anesthetic the result is disastrous.

H. KEARNEY, M. D.

Manual of Surgery: By Alexander Miles, M. D., LL. D., F. R. C. S., Ed., and D. P. D. Wilkie, M. D., F. R. C. S., Ed. and Eng. V. 1. 8th ed. London, Oxford Univ. Press. 1931. pp. 574.

The eighth edition of this book, comprising over five hundred pages of reading matter and one hundred seventy-six illustrations, besides presenting the present day status of surgery, reflects the teaching of the Edinburgh School.

Twenty-one collaborators, each dealing with subjects in which they are specially interested, have contributed to this manual.

This book is not only valuable for the student, but makes a ready reference for the busy practitioner.

PAUL G. LACROIX, M. D.

An Introduction to Gynecology: By C. Jeff Miller, M. D. St. Louis, The C. V. Mosby Company. 1931. 117 illust. pp. 327.

Here is a scholarly exposition of the fundamentals of gynecology. Intended for beginning students, the book does not consider therapy. The author arranges the subject matter in sixteen chapters to conform with the sixteen week course in junior gynecology at the Tulane School of Medicine. A concise section on the anatomy and physiology of the pelvic structures is followed by a very valuable consideration of the endocrine glands in relation to gynecology. The author then deals with the methods of examination and diagnosis. Three chapters are devoted to inflammatory conditions, and one chapter each to obstetric injuries and malpositions of the uterus. Tumors are discussed in five chapters and the last three sections are devoted to functional disorders: dysmenorrhea, sterility, irregularities of the menstrual flow, and ectopic pregnancy.

The book is splendidly written. It needs must be read. Each paragraph fairly bristles with facts, and, furthermore, each statement carries within itself the parenchyma of conviction fostered by twenty-five years of close clinical observation and study.

It is a pity that some of the figures selected to illustrate the subject matter are not worthy

of the text they accompany. That, however, is a minor fault which need not deter the student from reading this masterly compilation of the essentials of gynecology.

CHARLES MIDLO, M. D.

Lehrbuch und Atlas der Spaltlampenmikroskopie des Lebenden Auges: Text Book and Atlas of Slit-Light Microscopy of the Living Eye: Alfred Vogt. 2nd Ed. Vol. 1, Technique and Methods, Cornea and Anterior Chamber. 692 illus. Berlin, Julius Springer. 1931. pp. 313.

While reviewing this and other recent German ophthalmic books, a rather odd thought has repeatedly occurred to me. The Germans are apparently trying hard to make theirs' the world's scientific written language, at least in ophthalmology. Furthermore, they are apparently forcing a new type of book on those who keep pace with international ophthalmic progress, and at an almost prohibitive price. For example, this is one of a three volume series, costing, approximately, \$50 per volume. Several other recent volumes have appeared at prices ranging from \$35 to \$65 per volume. Needless to add, these books are not published in other languages. The thoroughness of the text, the completeness of the bibliography, and the remarkable quantity and quality of illustrations make these volumes indispensable, however, to the German reading ophthalmologist, even though the cost is plainly exorbitant.

This second edition in three volumes is written around the first one volume edition which appeared some ten years ago.

The principles and construction of the Zeiss lamp are very clearly and minutely explained. Naturally, we Americans feel that our Bausch & Lomb instrument, which is equally as good, should have been also described. The methods and technic, including various forms of illumination and observation, as well as the objective findings most frequently encountered, are then discussed in some thirty-five pages.

The normal cornea with especial reference to its anatomic details as seen with the slit lamp,

is described and pictured in a most detailed and artistic manner, as are senile changes and the various degenerations.

The anterior ocular findings associated with pseudo sclerosis as presented, are both new and interesting.

Almost one hundred pages and two hundred illustrations are devoted to inflammatory corneal affections as seen with the slit light.

Injuries, non traumatic tears of Descemet's membrane, also folds, blood staining, and affections of undetermined origin are then discussed.

Lastly, the anterior chamber is described with its various affections.

The literature references, numbering about two hundred and fifty, are quite well arranged, as is the excellent index and table of contents.

To the ophthalmologist who reads German, this outstanding volume with its remarkable illustrations, is of great service in the better understanding of slit-light microscopy which has changed so many of our conceptions in ocular pathology.

CHAS. A. BAHN,* M. D.

A Clinical Study of Addison's Disease: By Leon G. Rowntree, M. D., and Albert M. Snell, M. D. Philadelphia, W. B. Saunders Company. 1931. pp. 317.

This study of Addison's disease should be read by all physicians and students interested in this disease. One of the many commendable features of this little book is the original description of the disease by Addison in 1855, a most inspiring article. The pathologic physiology of the suprarenal glands in Addison's disease is clearly presented, and clinical records of 65 cases described.

Perhaps of greatest importance to the practitioner is the section on treatment. We are all familiar with the Muirhead treatment, which was the most efficient method up to the time of the preparation of an aqueous extract of the suprarenal cortex by Swingle and Pfiffner in March, 1930. Rowntree and Snell give the records of nine cases treated with this new extract which

is not yet on the market. While the authors are rightly modest in regard to results obtained by the use of this extract, it would appear that another very important discovery had been made in substitution therapy, one comparable to insulin in diabetes, except that the Addisonian patient generally has a tuberculous condition to contend with as well as a lack of cortical hormone. Nevertheless, if he can be tided over his exacerbations by this extract, his chance against the tuberculous infection is greatly enhanced. It is devoutly to be hoped that the long awaited cortical hormone is at hand.

RANDOLPH LYONS, M. D.

PUBLICATIONS RECEIVED.

Oxford University Press, New York: *Diseases of the Gums and Oral Mucous Membrane*, by Sir Kenneth Goadby, K. B. E., M. R. C. S., L. R. C. P., D. P. H., Fourth Edition. *Encephalitis Lethargica Its Sequelae and Treatment*, by Constantin von Economo. *The Causation of Chronic Gastro-Duodenal Ulcers a New Theory*, by J. Jacques Spira, M. R. C. S., L. R. C. P. (Lond.).

P. Blakiston's Son & Co., Inc., Philadelphia: *Medical Jurisprudence*, by Carl Scheffel, Ph. B., M. D., LL.B. *Gould's Medical Dictionary*, by George M. Gould, A. M., M. D.

The Midwest Company, Minneapolis: *What the Public Should Know About Childbirth*, by Walter Bourne Gossett, M. D.

Thacker, Spink & Co., Calcutta: *Indian Medical Research Memories*, by R. Knowles, I. M. S.

Thacker's Press & Directories, Ltd., Calcutta: *Calcutta School of Tropical Medicine and Hygiene for the Year 1930, Appendix B*, *Calcutta School of Tropical Medicine and Hygiene for the Year 1930, Appendix A*.

Bengal Government Press, Calcutta: *Annual Report of the Calcutta School of Tropical Medicine Institute of Hygiene and the Carmichael Hospital for Tropical Diseases, 1930*.

The Century Co., New York: *Pediatric Education*.

Librairie Felix Alcan, Paris: *Centrotherapie et Asuerotherapie*, by Mme. E. Pierre Bonnier, M. D.

New Orleans Medical

and

Surgical Journal

Vol. 84

OCTOBER, 1931

No. 4

STATE MEDICINE.*

ANNUAL ORATION.

JAMES B. BULLITT, M. D.,

CHAPEL HILL, NORTH CAROLINA.

I have selected as my topic the gravest social problem that confronts our profession today. At every gathering of doctors the question of State Medicine casts its menacing shadow across the threshold of their thoughts. This is a day of unrest. The medical press is full of apprehension; the lay press is flooded with criticism. We look back on a Golden Age when the family physician was the trusted counsellor, the best friend of all his community; and we look ahead at the gathering clouds of a storm that threatens to sweep away the private practice of our profession. Are the complaints mere growing pains, or are they the obstetric throes that will usher in a new order? We have a long and honored past. What shall be our future?

The thoughtless optimist may say, "God's in His Heaven, all's right with the world," but this does not absolve us of the obligation to recognize the problem and seek its solution. If we resent discussion of the matter, the fault must lie in us. Time does not permit, at this moment, a discussion of all the details, but we may consider the fundamentals. If our consciences are clear, we may face the situation fearlessly and

without prejudice, and we may begin with the slogan, "The patient's rights are paramount"; for the doctor is ordained for the patient, not the patient for the doctor. Too often we are prone to think of him as our private property.

The indictments against us may be summarized under two counts: (1) inadequate service, and (2) excessive costs. We reply that (1) medical service is better today than ever in the past, and that (2) the doctor's compensation is inadequate, not comparable to the returns in other spheres of human endeavor. Here we have a paradox. Both the charges are true, and our defense is equally true.

The history of medicine shows a slow development. In the evolution of the primitive witch doctor into the present man of science, we find long eras of stagnation, alternating with brief but brilliant periods of advance. Medicine was conceived and born in the ancient caves of darkness and superstition; it spent a long infancy in swaddling clothes of magic and mysticism; it passed through the vicissitudes of childhood and adolescence in parti-colored garments of empiricism and alchemy; today, in its young maturity, it clings to some of the toys and baubles of early years and sometimes masquerades in its discarded habiliments, but for the most part it wears the sober dress of modern science. We are passing today through the most brilliant of all our periods of progress. It is common knowledge that the past century has added more to scientific medicine than all

*Annual Oration. Presented before the Public Meeting at the Sixty-fourth Annual Session of the Mississippi State Medical Association, Jackson, May 12, 1931.

the accumulation of previous ages. Our recent graduates have a stock of scientific lore far beyond that of the leaders in the past; when to this is added mature experience, our service to our patients is far superior to the best of former days.

If this be true, then why the charge of inadequate service? It is because efficiency and cost are inextricably entangled. The highest quality of service exists, but it is not available to all. It is the old puzzle of supply, demand and distribution. The demand is large, the supply is insufficient, the distribution is imperfect. The problem was simple when one man could carry all the necessary equipment under his hat and in his hand bag; but the complexities of modern practice require hospitals and laboratories and much elaborate and expensive paraphernalia. Moreover, the vastness of the intellectual field and the limitations of the human mind make specialism a necessity. In this complicated situation costs mount high and imperfections multiply.

Here in the bosom of the family we may with propriety speak freely of our faults. The very fields of science which we so carefully culture and of which we so proudly boast are fringed with weeds, and tares and mingled with the grain. We may speak properly of scientific medicine, but medicine is not and can never be a science. It is a highly complicated art, using all the sciences as tools; he who attempts to practice it solely as an art is a fakir, and he who practices it solely as a science is a fool and a failure. We need not dwell upon the occasional charlatan in our midst; he is unimportant in the problem under consideration. But in this day of scientific precision, honest practitioners often neglect the art of medicine; they tend to become mechanized, to "substitute glassware for brains," to subordinate keen observation and clear clinical thinking to laboratory tests and to mere records of instruments.

We specialize too much; too early and too narrowly. None would decry the won-

derful achievements of the specialties. They are choice grafts upon the parent medical tree, and they yield a luscious fruit; but they require careful selection and judicious pruning. They must not bear too early nor grow too rankly, and their number must be limited, lest they sap the life of the root that gives them sustenance. The well trained general practitioner can do all that is necessary to diagnose and treat over 95 per cent of our cases. If he can not make the simpler laboratory tests and do much of the simpler clinical work that now goes to specialists, he is not competent to practice medicine at all. Only the more complicated matters should be referred. These constitute but a small percentage of illnesses; yet about one third of our doctors call themselves specialists, because the financial returns are better and because the life is less strenuous. It is not entirely a joke when it is said that a specialist is "one who has his patients trained to become ill only in office hours, while a general practitioner is likely to be called off the golf course at any time." How often do we see a youngster, fresh from medical school, with only a brief hospital service, announcing himself as a surgeon, an internist, an endocrinologist or what not—a status that should be attained only after ripe clinical experience. Such a specialist, lacking a broad medical background, develops a spirit of arrogant self-assurance, but fails to attain the true heights of efficiency. This reacts upon the general practitioner who often develops an inferiority complex, and, both to his own and to his patient's detriment, "parcels him out" to half a dozen confreres. This tends to destroy the intimate personal relation between doctor and patient that has so high a psychic value in therapeutics, and it rouses in the patient a just resentment at the added expense. Truly, "money is the root of all evil."

We hospitalize many patients needlessly. The facilities for diagnosis of obscure conditions and for treatment of many severe

illnesses can be obtained better, or more cheaply, in hospitals than in most private homes; but only too often, in subjecting patients to hospital expense, we are consulting our own convenience rather than the needs of the case.

There are some whose days of study cease early in their careers. They attend no medical meetings, they do not visit hospitals and clinics, their books are out of date, their journals are the advertising manuals of drug manufacturers. The cause may be indolence or indifference or poverty, but the results are the same.

These are some of our faults. We do things that we ought not to do, and we leave undone things that we ought to do; nevertheless, though our health may be impaired, there is still vigor in us. Most of us are not content with placebos. We are ready to study the symptoms and apply the remedy, thought it be drastic medication or radical surgery. We are striving earnestly to improve our service, and success will surely crown our efforts.

It is not our professional failures, however, that form the chief basis for the present discontent. The public is not stirred so much by our inefficiencies as by the high cost of illness, and we are less worried by our own imperfections than by our inadequate rewards.

Our lives are bound in close communion with those of our fellow citizens. We live in an intricate maze of antagonistic rights and interests. Civilization is built upon a curious mixture of selfishness, generosity and cooperation. Without the driving energy of self interest, we should stagnate in a placid pool of lethargy; without the restraining influence of altruism, our progress would be swamped in a seething torrent of constant conflict; without the directing hand of coordinated effort, advance would fail before the fitful winds of individual caprice. It is especially the power of cooperation that distinguishes the civilized man from the savage; and the

more complex the social order becomes, the more numerous and the more difficult are the necessary compromises and adjustments. Certain items in our generally accepted social philosophy are directly applicable to our present medical problem: (1) each individual is entitled to fair remuneration for his labors, (2) community rights take precedence over those of any individual or class, (3) the sick, the weak and the needy are a proper charge upon the health, the strength and the wealth of their neighbors. Let us try to apply these principles to the subject of discussion.

The education of a physician (premedical, medical and hospital service) requires from seven to ten of the best years of his youth. The cost in actual money may be conservatively stated as \$10,000. To this sum should be added at least an equal amount which he might have earned in those years at almost any sort of labor. No other profession or business requires so great an outlay. Common justice demands that the doctor receive proper compensation, not only for his daily services but also as dividends upon his heavy investment. Under present conditions only a small percentage of us receive such compensation.

The necessary costs of sanitation and of medical care, especially in conditons requiring hospitalization or its equivalent, have increased enormously in recent years. This is due partly to actual increased cost of service, but, even more to the fact that the public has been trained to expect and demand a better quality and a greater quantity of service than in the past. The total wealth of the country has increased to an equal or even greater extent, but neither wealth nor illness is or ever will be evenly distributed. We have a few paupers and a few millionaires; we have a considerable number of well-to-do people; but the vast majority are poor or of moderate means. Sickness is no respecter of persons, but it tends to concentrate among those in the lower economic strata;

and even there some families are stricken while others escape. Per capita wealth and per capita costs do not tell the story. The average medical bill per family may not exceed \$50 or \$60 a year, but the actual bill for the actual family may often reach into the hundreds or thousands of dollars. For the average American income a charge of \$50 is trivial, but for the actual wage earner it is often excessive, while the larger cost of prolonged illness is absolutely beyond his power to pay. Charity must step into the breach, or the doctor must remain unpaid, or the proud and independent must suffer without proper attention. A baby may represent a very high value at a relatively low price, but many a longing couple is childless because they cannot afford the investment. In considering this matter from the patient's standpoint, we must bear in mind that, in addition to the doctor's fees, he must often meet an equal or even greater expense for drugs and nursing and hospital care.

The situation is unsatisfactory. The doctor is underpaid; the patient is overburdened with debt and is often inadequately served. And yet modern medical knowledge offers marvelous possibilities of accomplishment. "Social sagacity has not kept pace with scientific and material progress." How can we coordinate supply and demand and distribution? If we accept the aphorisms that "the health of the people is the greatest of national assets" and that "the public health is the first duty of the statesman," then it follows that the best of sanitation, the best of personal hygiene and the best of medical care in illness should be available to every citizen. As a corollary to this we may add that the community should bear the burden of cost, not as a charity but as a public investment. Community interests and human sympathy alike demand that the healthy bear a part of the load of the sick, that the wealthy carry a part of the burden of the poor. How can this be done

without offending that fine sense of independence that constitutes the most valued possession of a free people? Shall we attain the desired end through sickness insurance or State Medicine or some other form of socialistic effort?

We take pride in our intense individualism. This is the natural accompaniment of a strong, aggressive and independent spirit. We love to speak of the inalienable right to life, liberty and the pursuit of happiness; and we sometimes think that this means pure individualism. When we utter that great phrase, however, we should follow it with the later phrase concerning government of the people, for the people, by the people. To most of us the mere word socialism is anathema. The term is apt to bring to our minds a wild eyed soap box orator who would rather talk than work, or an ignorant and inefficient workman envious of his more capable fellows, or perhaps a parlor theorist who evolves impractical Utopias in the seclusion of his study. We need not waste our time thinking of such people. There are others of a saner and more philosophical bent who preach a gradual, but ultimately extreme, extension of governmental agencies. With them we can agree in many general principles, though we may differ as to the extent to which the process can and should be carried. In a very real sense every law abiding citizen of a civilized country is a Socialist. We differ only in degree.

In a primitive society every individual, or at least every family is self contained. His shelter, his clothing, his food, everything he uses is "home made." He may live with the tribe for protection or for gratification of his gregarious instincts, but he can separate from his fellow men and still live with but little change in his material comfort. Some simple commerce may be conducted and some simple government may exist, but in general an extreme individualism may obtain. In modern civilization the individual is not lost; his efficiency is still of the utmost importance,

but his efforts must be co-ordinated with those of others. He is one of the threads in a closely woven fabric of society. His whole life depends upon others. Today not one of us could feed or clothe or shelter himself alone, much less obtain the multitude of other things that have become necessities. Life would be unendurable, if not actually impossible, without extensive organization of every sort of business and extensive restraint or control of these by governmental agencies. This applies in some measure to almost every field of activity. This is really socialism. Unconsciously we have come to approve of much that in former years we denounced. Our postal service, our public school system, our public sanitation, our medical practice acts are a few familiar examples. Within the memory of some of us, certainly within the memory of our fathers, each of these things was considered dangerously radical. The real question is not "whether," but how far and how fast we must socialize.

In medicine our greatest achievements have been in prevention of disease. Most of this has been through a socialistic application of scientific knowledge. Individuals have pointed the way, but it is public organization that has banished yellow fever from our land, has halted the threatened spread of bubonic plague, has brought typhoid fever to the vanishing point over wide areas, and has accomplished countless other benefits of which we all approve.

Is it necessary or is it expedient to apply this principle to curative medicine? Our individual interests as physicians must be subordinated to the real needs and welfare of the public. A partial application is of ancient and honored usage. Free hospitals were in existence two thousand years ago. No well conducted hospital can be supported upon the fees that the poor, the near-poor and the people of moderate means can afford to pay. In the past few years our public hospitals have increased

astonishingly, and over 60 per cent of the beds are supported by public funds, national, state or municipal, and many more are maintained by private philanthropy. It is hardly possible to estimate the benefits these confer on the public, but still the needs are far from filled. Country districts and small communities are almost barren of hospital service. These institutions are both a benefit and a detriment to the doctors. They afford us facilities for work that we could not otherwise obtain, but they also call for much unpaid service from us.

The trend in every civilized country is against strict individualism in medical practice. It may astonish you, for it certainly astonished me, to learn that in Germany today only five per cent of the physicians are in genuine private practice; 95 per cent receive their remuneration from the State or the universities or the hospitals or the insurance organizations. In Denmark and Holland sickness insurance, closely directed by the State, dominates practice. In England the panel system is steadily gaining strength, and the British Medical Association is changing from opposition to support of that plan. In this country the movement is evidenced by the steadily increasing scope of Board of Health activities, by the establishment of pay clinics, by the development of local health associations, and by the growth of medical services in large industrial organizations. These changes have come in response to genuine needs, but they do not fully nor properly meet those needs. They do not reach all the people who need them; they are often inefficient, sometimes actually dangerous; the various activities are not coordinated and never can be coordinated under the present methods of their development; they lack the professional guidance that we might have given them but have withheld. The movement will continue to grow. It is both to our interest and to that of the public that we aid in formulating a comprehensive plan that will give the best

possible medical service and will do justice to all.

Ideals are rarely attainable, but high accomplishment is only possible with high ideals as our goal. Let us try to draw, in outline, a picture of an ideal socialistic medical service, available to all, designed primarily for the patient, but just also to the physician. It must be in accord with the spirit of organization that is the ruling force in our highly complex social structure. Private organization may be more efficient in business management than a governmental bureau, but that efficiency is for the profit of the few not for benefit of the many. Most of the claims for that efficiency comes from those who wish to make the profit. Private organization in medical matters will not reach all the people, nor can it operate all the different phases of medical affairs, nor coordinate the different kinds of service. This system must be conducted by, or at least extensively controlled and directed by State agencies.

The maintenance of health depends upon personal hygiene, public sanitation and curative medicine. Our existing knowledge is sufficient to yield wonderful results, but only at tremendous expense. This can not be met individually by those in need, but can be easily paid by the public collectively. In our ideal plan hospitals and laboratories, adequate to the needs and accessible to the people of each community, would be developed at public expense. Medical men, trained at public expense and maintained by public funds, would be distributed through these hospitals according to the needs of the population. Consultants and specialists, drawn from the more experienced and more skillful men, would be stationed at strategic points. Among this corps of specialists would be an adequate number charged with sanitary administration. Opportunities for graduate study would be afforded, and utilization of such opportunities would be required. Periodic

examination for promotion and for continuance in the service would eliminate the unfit and indolent. Remuneration might be upon a fee basis, but probably salaries would be more practicable. The whole service would be free to the public. The organization and direction would be under the charge of medical men.

No ban would be placed upon private practitioners, but both they and their private hospitals would be required to measure up to the official standards. The bulk of the people would be well cared for and would be well satisfied with the public service, but there would probably always be a wealthy group who would prefer the independent practitioner whose value they would gauge by the size of his fees. Medical aspirants for this class would not be lacking; but with the gradual perfecting of the public organization this group would become progressively smaller.

Why should we object to such a plan? Behind all human actions there always lies a mixture of good and bad, selfish and unselfish motives. Many have a serious fear that the quality of our work would deteriorate, but in all our discussions on this subject the element of self interest looms large. In our development from ancient days we have gathered a great Tradition of Altruism, of unselfish service to humanity without thought of personal gain. We give more free service than any other class of men, not because we are better than they, but because we are bound by our Tradition and because our work brings us in constant contact with human misery. We usually do this cheerfully (and boastfully), but we often complain of the injustice of the burden and would gladly ease our tired shoulders. We are justly proud of our noble inheritance, but we must not forget that we have also a legacy of cant and conceit and conservatism. We almost believe in a Divine Rights of doctors. We evince this in our constant self-praise, in our sensitive resentment of crit-

icism, in our indignation at any encroachment upon our prerogatives. We sometimes mistake the pale glow of tradition or the blinding glare of success for the clear light of high ideals. To the highly successful physician with a large and lucrative practice, the thought of a mere salary is naturally not appealing. The indolent doctor who has ceased study and whose practice depends upon his personality and upon the medical ignorance of the public resents interference with his inactivity. Most of us are in neither of those classes, but we are borne down by the inertia of conservatism; we cling to our desire for independence, and we fear a lowering of our economic status. Probably it is because of these fears and prejudices that we are prone to believe that State Medicine would destroy research initiative and would lower professional standards. Undoubtedly competition is a great incentive to effort, but this need not be lacking in a salaried profession. Honest and ambitious men work as faithfully and effectively for salaries as for independent fees. The work itself is the real stimulus; moreover, freedom from the harassing uncertainties of collections permits more whole hearted devotion to professional duties. The greater part of today's medical research and much of the finest clinical work is done by salaried men. Is it necessary to cite in evidence such organizations as the Mayo Clinic and the Rockefeller Foundation and many other lesser bodies? Or need we mention such individual names as Pasteur and Welch and Gorgas and Reed and hosts of others? The fear of lowered efficiency is unfounded.

Our fears that we would be reduced to penury have a scanty basis. The large incomes of the few would be much reduced. The pitifully small incomes of many would

be increased. The great majority of us would probably stand financially about as we do today, and we would have a greater feeling of security. We would certainly be in a far better position under State Medicine than we would be in contract jobs for privately controlled sickness insurance companies or industrial corporations. These promise to dominate the situation unless the State takes the field.

The serious problem before us is not whether there shall be a change in our medical system. That is assured. The real question is what form shall that new system take, how rapidly shall it be developed, and who shall be its organizers. This calls for careful planning by our best minds and for a strenuous campaign by our most energetic leaders. The challenge is before us. How will organized medicine meet it?

My personal taste is strong for the old regime. I believe that is true of most of us, but the public's will can not be denied. Some form of socialized medicine is inevitable. Without the wisest guidance it may bring medical chaos for the public and industrial slavery for us. We are at a fork in the road. We and the public are inseparably bound together. We must take the same route. Shall we be like Alice in Wonderland and say that we do not know nor care which way we go? If so, the public may draw us to destruction. The great movement has gained momentum. We can not check it, but we may direct its course. Let us not justify the charge that we are "like a cross dog on a door step, basking in the light of our Tradition and snapping at every passing shadow." The Old Order is passing away. Let us greet the New Order with cheerful courage and faith, and let us take the lead in guiding it along the best and safest paths into the Portals of the New Day.

RADIOLOGY AS A SPECIALTY OF
MEDICINE.*

GEORGE P. SIMS, M. D.,

GULFPORT, MISS.

The practice of radiology, which embraces the use of radiant energy for diagnosis and treatment—the roentgen-rays for both, and radium for the latter—although one of the youngest branches, has shown most rapid advances in improvement of technical procedures as well as practical application of general medical knowledge in diagnostic interpretation and correlation of the results of the treatment of various diseases. Radiology has now progressed from the experimental stage of comparatively few years ago to the status of an exact science, but it is by no means one hundred per cent accurate, which I believe is true of any laboratory procedure. However, we can logically expect further advances as radiologists are better trained, and general practitioners come to realize the great value of radiology in the diagnosis and treatment of pathological conditions.

We have outgrown the era in medicine when the general practitioner dabbled with radiant energy, more or less seriously, and for the most part as a hobby and diversion. Therein lies great danger, not only to the physician but also to his patient, resulting in useless work, faulty diagnosis, and poor results in treatment. Wherever this sort of thing continues, the layman soon understands that something is wrong, and the entire field of radiologic practice is brought into disrepute. If the general physician has had sufficient specialized training to enable him to do competent practice in the field of radiology in conjunction with his other work, the patient should and will be satisfied, but the ownership of a few milligrams of

radium, or a roentgen-ray machine and a few technic charts alone does not qualify any of us to practice one of the most highly specialized branches of medicine.

It is often embarrassing to the radiologist, and the general physician to a greater degree, when the latter states an opinion which can not be confirmed and must later be corrected by the radiologist.

The radiologist must be well trained in general medicine, with particular attention to gross pathology. In addition, he should have a long period of special training to enable him to care for the patient adequately in all diagnostic and therapeutic procedures.

As to roentgenology, the technical procedures for diagnostic films are not difficult and need be carried out only under the supervision of the roentgenologist. Contrary to the opinion of some, the roentgenologist is not a "glorified technician," and the diagnosis is not written in plain, easily interpreted words on the dry film. Not until the film is completed does the real work of the roentgenologist begin. He must evaluate the clinical facts concerning the patient and the shadows which are presented in the roentgenograms or roentgenoscope, and correlate these findings in the light of good sound reasoning, rather than "this case looks like one I have seen before."

Radiology occupies a peculiar position among the specialties of medicine. It is, by far, the broadest in its scope. It is brought into every day contact with all of the other specialties and requires a good working knowledge of these specialties—as obstetrics, gynecology, internal medicine, surgery, neurology, urology, orthopedics, dermatology, gastroenterology, and others. The radiologist is constantly in consultation with other specialists, without encroaching upon their respective fields. He is not limited to any one system or region of the body. Thus he cor-

*Chairman's Address, presented before the Section on Radiology at the Sixty-fourth Annual Session of the Mississippi State Medical Association, Jackson, May 13, 1931.

rectly could be styled "general practitioner-radiologist." But, more than a general practitioner, he must be somewhat of a physicist as well as a physician, must have some knowledge of electricity, and a mechanical flair.

To recapitulate: great advances have been made in the field of radiology, but these will be greater when radiologists are better trained, and when general practitioners do not lower the standards of radiologic practice by entering a field in which they are not well trained or well qualified; technical procedure is of least importance—the radiologist is not a "glorified technician" he must be well trained in general medicine, in the use of radiant energy and physics; the radiologist occupies a peculiarly comprehensive position in medicine in that his field is intimately related to all of general medicine and the specialties, and is not limited to any one organic system or region of the body.

MEMORIAL SERVICE.*

OSCAR W. BETHEA, M. D.

NEW ORLEANS

At this busy season we have left our several fields of activity and gathered ourselves together that we might become better laborers in our chosen work, and better serve humanity. But—

"Some we have loved, the loveliest and best
That from his vintage rolling time hath
pressed

Have drunk their cup a round or two before,
And one by one crept silently to rest."

It is fitting that we should pause thus early in our united effort, and pay tribute to those friends and fellow servants who have gone to render their final account of the talents that an al'-wise Providence had entrusted to their keeping.

We cannot weigh the burdens they carried.

We cannot estimate the handicaps against which they played the game of life.

We cannot measure the depths of their sorrows and disappointments, nor can we envision the heights of their high resolves and noble ambitions.

We have only the pitifully inadequate standards of work accomplished, but even this leaves them a large balance in the book of life.

Given their opportunities could we have done more? We dare not think so. Could we have better met the conditions they faced? Let us rather hope to do as well.

Where they failed—there is no law of charity that denies us the benefit of so guiding our lives that where they stumbled we do not fall. Where they succeeded—they would be the last of all to refuse us the privilege of reaching up to the higher and better things to which they have shown us the way.

They have left us examples to follow, marks to strive for. May we carry forward the torch dropped from their failing hands.

"Can storied urn or animated bust
Back to its mansion call the fleeting breath!
Can Homer's voice provoke the silent dust,
Or flattery soothe the dull, cold ear of
death?"

No, but we cherish the memory of the smi'es, the cordial handclasps, the words of commendation and encouragement given—and received. We regret that while opportunity was ours, we did not more.

Fellow physicians and guests, we will rise and stand with bowed heads while we read the list of our associates who have passed on during the current year:

Dr. M. Boudreau
Dr. Oscar Dowling
Dr. Chas. F. Duchain
Dr. R. R. Grant
Dr. Edward S. Kelly
Dr. A. Ledoux
Dr. I. J. Newton

*Read before the Louisiana State Medical Society, New Orleans, April 14-16, 1931.

Dr. D. I. Payne
Dr. V. Painchaud
Dr. Thomas Ragan
Dr. Joseph Raphiel
Dr. M. E. Saucier
Dr. L. N. Teller
Dr. Paul H. Tetreau
Dr. Solon G. Wilson

May the lives they lived continue to bring forth blossoms in the soul's flower garden of beautiful memories for their true records are left, not in printed page and sculptured marble, but in the hearts of those who knew them.

DR. EDWARD S. KELLY.

Dr. Kelly was a native of Canton, Mississippi, but spent most of his life in New Orleans. He was a graduate of Tulane University Medical School and practiced here. About two years ago he became a member of the Medical Staff of the Orleans Parish Board of Health in which he was Chief of the Sanitary Division. He died at the Hotel Dieu after a brief illness at the age of sixty-one years. Dr. Kelly was survived by one daughter and two sons.

DR. P. H. TETREAU.

Dr. Tetreau was born at Thibodaux, Louisiana, in 1868, of French-Canadian ancestry. He attended St. Mary's College in Montreal, closing his work there in 1886-87, and attending Fordham College for one year. He then matriculated in Tulane University and graduated in Medicine in 1892. His first practice was in Taribeaux Parish. He then moved to Plaquemine Parish where he practiced for three years, after which he spent three years at the Ear, Nose and Throat Hospital in New Orleans. His later practice was at Monroe where he labored for many years during which time he did much postgraduate work, particularly in New Orleans. He died October 28, 1930. His memory is cherished by a large group of friends who remember him particularly as a kind friend and physician and an earnest student of medicine.

DR. THOMAS REGAN.

Dr. Regan was born in Lincoln Parish, Louisiana, August 3, 1866. He entered Centenary College in 1885, remaining two years and then entering Tulane Medical Department graduated in 1891. He did postgraduate work at New Orleans Polyclinic in 1892. Practiced in Ruston, Louisiana, in 1892-93. Assistant Superintendent Louisiana State Hospital for Insane, Jackson, 1894-98 inclusive. Postgraduate work in New York City 1899-1900. In 1900 passed New York State Board and practiced in New York City for seven years. During this time he served as Medical Inspector for the Health Department and served in other positions. In 1906 he resumed the practice of surgery at Ruston where he remained for three and one-half years. From 1910 to time of his death, 1931, he practiced in Shreveport, giving special attention to surgery. He volunteered for service in World War and returned with the rank of Captain. He was President of Shreveport Medical Society in 1922. Was active as a Fellow of College of Surgeons, a Mason and a Shriner. He died in Shreveport January 5, 1931, of cerebral arteriosclerosis.

DR. SOLON G. WILSON.

Dr. Wilson was born in Hazelhurst, Mississippi, and received his early education at that place. He later attended the University of Mississippi, then entered Tulane, where he graduated in medicine. He returned to Mississippi, where he began the practice of his chosen profession. Later he went to Bogalusa, Louisiana, where he was Chief Surgeon for the Bogalusa Lumber Company and for the New Orleans and Great Northern Railway. About twenty-two years ago he resigned these positions and went to Europe for postgraduate study which was carried out principally at Vienna. He then located in New Orleans and began the practice of medicine with particular attention to surgery. Probably his greatest work was in the surgery of children. He was House Physician for the St. Charles Hotel for fifteen years and for

the last several years was also on the Charity Hospital Board. He gave much time to this hospital work and his services were invaluable to that institution. For the last few months of his life he was confined to his bed with rheumatic fever and finally passed away of heart complications. He is survived by his wife and one daughter. Dr. Wilson was regarded as one of the leading members of his profession in this section of the country and he possessed those rare qualities that make for success in practice and caused him to be surrounded by a large group of devoted friends.

DR. OSCAR DOWLING.

Dr. Dowling, of New Orleans, Louisiana, formerly president of the Louisiana State Board of Health, was killed January 2, 1931, by a train aboard a ferry in New Orleans. Dr. Dowling was born in Alabama in 1866. He graduated from Athens College, and in 1888 from Vanderbilt University School of Medicine. He did graduate work in this country and abroad. He was made Health Officer of Henry County, Alabama, in 1892; in 1896 became Resident Surgeon for the Ear, Eye, Nose and Throat Hospital, New Orleans, and was for ten years oculist and aurist for the State Charity Hospital, Shreveport. He was appointed a member of the State Board of Health in 1906, and later was made President. Dr. Dowling was a member of the House of Delegates of the American Medical Association, 1908-1913, member of the Board of Industrial Medicine and Public Health, 1924-25. Dr. Dowling was formerly on the faculty of Tulane University School of Medicine, was a member of the American College of Physicians and had been President of the Louisiana State Medical Society and of the Southern Medical Association. He founded in 1904 the Medical Recorder, which later became the Journal of the Southern Medical Association. He will be remembered by all who knew him as a genial friend, with high ideals, who fought constantly for the best in medicine and who sacrificed his personal interests

rather than compromise when ideals were involved.

DR. I. D. PAYNE.

Dr. Payne was born at Montgomery, Alabama, in 1879. He graduated at the Memphis Hospital Medical College in 1910. In 1912 he was married to Miss Ida Hutcheson. He devoted his efforts to general practice but took time to do considerable postgraduate work, particularly at Memphis, Chicago, and New Orleans. He was a Mason and active in church and those affairs that indicated a man of high ideals, as well as an outstanding physician. He died October 9, 1930, of coronary thrombosis. He is survived by his wife and four children.

DR. F. C. DUCHEIN.

Dr. Duchain was born at Baton Rouge in 1886, the son of Dr. Jean B. Duchain, who came to this country from France. He graduated at the Louisiana State University, then went to the University of Tennessee, where he finished his medical preparation. Began the practice of medicine at Lecompte, Louisiana, but returned to Baton Rouge upon the death of his father in 1903. He did postgraduate work, particularly at Tulane. He married Miss Louise Ogburn and she with two daughters and one son survive him. He was past president of the East Baton Rouge Medical Society and took an active interest in medical affairs, as well as in church, civic and fraternal organizations. He was one of the oldest members of the professional group at Baton Rouge. He was highly regarded by the physicians of Louisiana and left a host of friends to mourn his passing.

DR. L. N. KELLER.

Dr. Keller was born of a prominent and wealthy family on the old home place in East Feliciana Parish, Louisiana, on January 18, 1871. He died at the same place October 8, 1930. He was the son of the late Captain John F. Keller. Dr. Keller was educated at Centenary College, and graduated in medicine from Tulane University.

He was a member of the Feliciana, Bi-Parish, and State Medical Societies. Even before he was graduated in medicine his health became impaired and he had this handicap to contend with the balance of his life. He was a man of strong conviction and great determination, a good friend and a hard fighter. He had a large practice in East Feliciana, and had it not been for his impaired health, he no doubt would have filled an even higher place.

DR. V. PAINCHAUD.

Dr. Painchaud was born in Canada February 26, 1878. His early education was at St. Ann's College and he received his degree in medicine from La Salle University, Quebec, 1893. He then studied for two years in Paris, after which he settled in Montreal, Canada, and began his chosen work. He later moved to Assumption Parish, Louisiana, where he was engaged in active practice for nearly twenty-five years, carrying on a large and successful work. He died at the Hotel Dieu, May 28, 1930, of acute nephritis. He was a physician of splendid equipment and left a strong impression on the hearts of a large group of friends.

DR. JOSEPH RAPHEL.

Dr. Raphiel was born in Campti, Louisiana, October 25, 1884; receive his early education in the public schools of that town, later on at the Louisiana Industrial Institute at Ruston. He then attended the Medical College at Louisville and New Orleans, graduating from Tulane in 1912. He practiced the profession of medicine until 1929, when he entered the Federal Public Health Service and served as the Director of Terrebonne Parish Health Unit at Houma until the time of his death, November 8, 1930. Dr. Raphiel was married to Miss Katherine Mitchell of New Orleans in 1920. He is survived by his wife, three daughters and one son.

DR. MERRICK E. SAUCIER.

Dr. Saucier was born at Marksville, Louisiana, in 1882. His preliminary education was obtained at that place. Later he went to Louisiana State University and afterwards received his degree in medicine at Tulane in 1907. He served a two-year internship at Charity Hospital. He then returned to Marksville where he began active practice. In 1913 he moved to Lafayette and became connected with the Lafayette Sanatorium and later became president of that institution. In addition to a large practice, he took an active part in the financial affairs of his community. He was particularly interested in the activities of the Rotary Club. He held many positions of trust and honor in the Masonic and other organizations. He took an active interest in educational affairs, and at the time of his death was a member of the State Board of Education of Louisiana. He married Miss Florence Hasson and is survived by his wife, one daughter, and one son. Dr. Saucier was not only a leading member of the medical profession but will also be remembered as an outstanding citizen of the State.

DR. MARTIAL BOUDREAUX.

Dr. Martial Boudreaux was born in the village of Sunset, Louisiana, October 2, 1879. He received his preliminary education at Grand Coteau, spent two years at L. S. U. and finished medicine at Tulane University in 1906. He entered general practice at Breaux Bridge, Louisiana. He was married to Miss Alice Guidry. He died at the Lafayette Sanitarium of Bright's disease after an illness of several months. He is survived by three daughters and three sons.

DR. I. J. NEWTON.

Dr. Newton, regarded as one of the State's most able physicians and surgeons, died June 5, 1930, at St. Francis Sanitarium, Monroe, Louisiana. Immediate cause of death was neuritis, from which he had suffered for many years. Dr. Newton was

a native of Hamburg, Arkansas, where his father had been an outstanding physician. He received his medical education at Louisville Medical College, and began the practice of medicine in Morehouse Parish. He was married shortly after his graduation to Miss Lucy Ross, of Bastrop, Louisiana. In the fall of 1891, Dr. Newton came to Monroe and formed a partnership with Dr. T. Y. Aby. Several years later he removed to Little Rock, Arkansas, where he followed the practice of medicine, but later returned to Monroe. He had been in practice there more than twenty-five years, when, due to failing health, he retired from active work. In his long career as a physician and surgeon, Dr. Newton received numerous outstanding honors. In 1887 while at Bastrop, he was elected President of the Louisiana State Medical Society. At various times he also aided in the preparation of State legislation bearing on medical matters. Several years ago, when the State Medical Society met for annual convention in Monroe, numerous honors were paid Dr. Newton. He is survived by his wife and three children.

DR. ALEXANDER LEDOUX.

Dr. Ledoux was born March 12, 1867, in the City of New Orleans. He received his preliminary education at Spring Hill College, Mobile, Alabama, and graduated in medicine in 1890 from the medical department of Tulane University. For several years he was associated in practice with the late Dr. Jacob Windahl, and succeeded him at his death. His professional career was entirely devoted to general practice, largely among the old French families of this city. He never worked in any other locality. He was a life long member of the Orleans Parish Medical Society, the Louisiana State Society and the American Medical Association. In his early career, he taught in the Postgraduate School of Tulane University. He was an ardent sportsman and took an active interest in civic affairs. He was a member of the Lake Shore, the Chess, and the New Or-

leans Athletic Clubs, besides being a moving spirit in numerous Carnival Organizations. He died at his home in New Orleans December 23, 1930, of coronary thrombosis.

THE USE OF AVERTIN AS A BASAL ANESTHETIC.†

I. M. GAGE, M. D.*

and

ALTON OCHSNER, M. D.*

NEW ORLEANS

Avertin (tribromethylalcohol) was first prepared by Willstaetter and introduced into Germany in 1926 as E 107. The original preparation as done by Willstaetter consisted of yeast reduction of bromal (tribromacetaldehyde, CBr_3CHO). Avertin is a white crystalline substance which readily sublimes and is soluble up to 3.5 per cent in water at 104 degrees Fahrenheit. When an aqueous solution of avertin is heated up to 70 degrees centigrade, hydrobromic acid is released and there is formed dibromacetaldehyde which is very irritating to the gastro-intestinal tract.

Experiments with avertin in this country were begun about two years after its introduction abroad.

Avertin was first used on the Continent in the solid form, and the preparation of the solution for rectal administration was a long and tedious process, requiring from forty-five minutes to an hour. This difficulty has been overcome in that avertin is now supplied in a liquid form as "avertin amylene hydrate" in which one cubic centimeter of the solution contains one gram of the drug, avertin. Amylene hydrate is used as the vehicle because it dissolves the avertin in high concentration, maintaining it in solution, and is readily soluble in water. Amylene hydrate also

†Read before Orleans Parish Medical Society, October 27, 1930.

*From the Department of Surgery, Tulane University Medical School and the Charity Hospital, New Orleans, La.

serves as a respiratory stimulant (avertin depresses the respiratory center) and is a mild hypnotic (Eichholtz). The preparation of the avertin solution for use as a rectal anesthetic now requires only about five minutes in contrast to the tedious and lengthy ordeal in preparing the solid form. Blomfield and Shipway¹ found little difference in the anesthetic properties of the properties of the solid or liquid forms. However, they believe that the fluid form is more effective and that it produces less respiratory disturbance. In the beginning the solid form was used clinically to produce anesthesia and was administered in rather large doses without a thorough understanding of its preparation and testing. Severe complications occurred, especially because of deleterious effects on the blood pressure, respiratory center, and gastro-intestinal tract. The mortality was also excessive.

There are some interesting observations as regards its clinical use, brought out by the discussion of the report on avertin in Berlin, 1927, by Eichholtz and Butzengeiger². Butzengeiger² reported his clinical experience with avertin anesthesia in which he used 150 milligrams per kilogram of body weight. This produced marked excitation and drowsiness lasting about eight hours. He immediately decreased the dose in his other cases. He reported the use of avertin in 300 cases, in 200 of which a laparotomy was performed. He believed that the drug was a great advance in anesthesia, provided the dose was not exceeded and complete anesthesia was not required in every case.

In discussing Eichholtz and Butzengeiger's report, Nordman,³ of Berlin, stated that he had used avertin in 250 cases. His patients ranged from fifteen to seventy years of age. In his first cases severe proctitis and tenesmus occurred, but this complication was absent in his last 200 cases. Marked excitation occurred in some cases, but was absent in his last 200

cases. He emphasized the importance of not administering the anesthetic under high pressure.

Sauerbruch⁴ stated that he had three deaths following its use, all three of his patients dying with marked gastro-intestinal symptoms. He regarded the drug as not being suitable for general use at that time.

Reischauer,⁵ of Breslau, reported 60 cases in which anesthesia was produced with avertin. Two deaths occurred in his series, autopsy revealing fatty degeneration of the liver and kidneys (the same findings as occur in chloroform poisoning).

Unger⁶ (Berlin) reported 345 anesthetics with avertin. He had no deaths in his series, but in 8 cases there was severe asphyxia with or without cyanosis and long periods of respiratory cessation. He used from 0.1 to 0.15 gram per kilogram of body weight. He found lobeline and camphor to be valueless in his cases with respiratory disturbances.

Melzner⁷ (Königsburg) reported 100 cases of avertin anesthesia. In only 50 per cent of his cases was anesthesia deep enough as to require no additional anesthetic. In 3 cases the effect of avertin failed completely. Serious complications arose during 18 of the operations. There was a marked fall in blood pressure in 5 cases. Melzner⁷ had 4 deaths (brain tumor, gastro-enterostomy, Bazedow's disease, and simple goitre). He concluded that the drug was more dangerous than the other anesthetics in use.

Druegg⁸ (Cologne) reported 60 cases with 2 deaths, but could not attribute either to avertin. In a few cases gastro-intestinal disturbances occurred.

Sievers⁹ (Leipzig) reported 89 cases; 15 complete anesthetics, 15 satisfactory, 8 cases anesthesia unsatisfactory, 11 cases failed due to the fact that the solution was expelled from the rectum. In his series there were 2 cases each with cardiac and

respiratory disturbances, both of which responded to the administration of cardiazol.

Krueter¹⁰ (Nuremberg) reported 300 anesthetics with avertin. Complete anesthesia was obtained in 68 per cent. Ether was necessary as a supplementary anesthetic in 26 per cent and in 6 per cent the results were unsatisfactory.

Recent reports by Morrin,¹¹ of Ireland, Blomfield and Shipway,¹² Hughes,¹³ George Edwards,¹⁴ of England, and a visit last summer to a few of the clinics in this country show an increase in the use of avertin as a basal anesthetic. All observers report excellent results in its use as a basal anesthetic and have complications to occur only in those cases in which the amount of the drug was greater than 100 milligrams per kilogram of body weight in an attempt to produce complete surgical anesthesia without the addition of other anesthetics. The majority of reports at present from different parts of the world show that avertin used to produce complete surgical anesthesia is losing its popularity, whereas, on the other hand, its use as a basal anesthetic is increasing and becoming more popular.

Recent reports from Germany give a comprehensive analysis of the number of cases and deaths in the use of avertin as an anesthetic. They report 200,000 cases with 50 deaths, one death in every 4,000 cases, or 0.00025 per cent mortality.

It is evident from a review of the literature that the earlier bad results which were obtained from the use of avertin are not gotten today. We believe that the marked reduction in mortality is due to the use of a more refined product, supplied in liquid form and a smaller dosage used only for basal anesthesia. In fact, even the manufacturers warn against its use other than as a basal anesthetic.

In our small series of 53 cases we have used avertin only as a basal anesthetic. An

additional anesthetic was required in 38 cases (71.6 per cent), and in 15 cases (28.3 per cent) no additional anesthetic was required, complete surgical anesthesia being present.

ABSORPTION AND ELIMINATION.

Absorption. The absorption of avertin is from the colon, and the drug is more rapidly absorbed than the water in which it is dissolved. The absorption is very rapid, according to Blomfield and Shipway,¹ within forty to forty-five minutes. However, Morrin¹¹ has recovered some of the fluid by washing out the rectum within forty minutes after administration. Fluid retained in the rectum following an enema for cleansing purposes previous to administration of the drug retards absorption. If the rectum is full of feces, retardation also occurs, but in some patients in whom the avertin was administered without previous preparation no delay in absorption was noted. In our cases similar experiences have been observed.

Elimination. The drug is eliminated almost entirely by the liver and the kidneys. Avertin is detoxicated in the liver and is excreted as glycuronic acid. Straub¹⁵ has recovered from the urine as much as 81 per cent of the drug. Gainsborough and Gardner¹⁶ made daily analysis of the urine and found that 20 to 60 per cent of the avertin was excreted in this manner. Therefore, any marked disturbance of the liver or the kidney function will result in a delay in excretion. Recent observations by Pribram¹⁷ are of importance regarding the excretion of avertin, and he suggests a method by which excretion can be increased and the narcosis rapidly terminated. He observed that patients suffering with Basedow's disease would tolerate large doses of the drug and that the narcosis was of shorter duration. He concluded that this was the result of increased basal metabolism and that thyroxin, when administered to a patient in whom it was desirable to shorten the narcosis or in cases receiving an overdose of avertin, would

accomplish the same results. Eichholtz² showed experimentally that the detoxification of the drug was decreased under the following conditions: (1) removal of the thyroid gland, (2) removal of the temporal lobe of the brain, (3) removal of the adrenals, and (4) in artificially produced fever. This is in accord with the clinical observations of Pribram.¹⁷

LOCAL AND SYSTEMIC ACTION OF AVERTIN.

Locally, if the drug is not properly prepared and tested, there may result a severe proctitis, which in some cases may progress to sloughing of the rectum. In others there may result only an irritation of the rectum with tenesmus.

Besides its narcotic and anesthetic effects there are effects which are not welcomed; namely, the effects on the blood pressure and respiratory center, which at times are most alarming and require energetic measures to overcome.

Within a few minutes (usually five to ten) after the instillation of the avertin solution into the rectum, the patient falls asleep without any excitement, resembling a natural sleep. Within fifteen to twenty minutes the patient does not answer any questions and is in a state of narcosis. The respirations are decreased in number and amplitude, producing at time cyanosis of varying degrees. The degree of respiratory disturbance is dependent upon the variation in susceptibility of the patients and the amount of the drug administered. The larger the dose the more certain the respiratory center will be affected and in some cases there has been complete cessation of respiratory movements due to respiratory paralysis. Camphor, lobeline, and carbon dioxide are useless as respiratory stimulants when the respiratory center becomes paralyzed by avertin (Killian¹⁸). Herzberg¹⁹ reports the use of 0.1 to 0.4 gram of caffeine sodium benzoate in 20 per cent solution intravenously where there are marked respiratory disturbances and

even in those cases with cessation of respiratory movements. As a result of this injection, the respirations increased in frequency and depth, and the blood pressure showed a rapid rise. In animal experiments, caffeine given intravenously interrupted avertin narcosis, but it was impossible to increase the lethal dose of avertin by administering caffeine.

In our series we have not had any respiratory complications except in one case. This patient had cyanosis of lips and fingers, which we attributed to an overdose of avertin. By mistake the patient received 125 milligrams of avertin per kilogram of body weight instead of the usual 100 milligrams. However, no untoward results occurred in the case. The rest of the series showed only a slight slowing of respiration.

The conjunctival and corneal reflexes are lost and the pupils are contracted but react to light; however, the conjunctiva shows congestion which lasts from thirty minutes to an hour. The patient usually remains in a narcotic and amnesic state two to three hours after returning from the operating amphitheater. There is no excitement on awakening, and the patients, even though apparently asleep, can be aroused and will answer questions. The narcosis is easily transformed into an anesthetic state by the addition of other anesthetic agents, such as ether or gas. However, the preliminary avertin narcosis decreases the amount of additional anesthetics to a marked degree.

In our series we have been able to operate upon 15 cases out of the 53 without the addition of other anesthetics. In 38 cases, additional anesthesia was necessary to reinforce the avertin narcosis. Ether has been the anesthetic of choice in the 38 cases requiring the addition. The average amount of ether used in the 38 cases was two ounces.

The effect on the blood pressure has been constant in the majority of cases reported,

which we have also found in our cases. The blood pressure begins to fall immediately after the drug is instilled into the rectum. However, the fall is gradual and reaches its maximum in about thirty minutes. The average fall is from 10 to 30 millimeters of mercury, which is about the average found in natural sleep. However, at times the decrease in blood pressure is marked, falling at times 50 millimeters of mercury or more. Ephedrin or adrenalin will combat this unpleasant complication. In our series the average decrease in blood pressure was 17.5 millimeters of mercury. In one case the blood pressure could not be ascertained. This tremendous and alarming fall in blood pressure occurred in a case of brain tumor, and because of it the operation was delayed. The patient made an uneventful recovery. Measures, of course, were necessary to restore her cardiovascular equilibrium. Infusions of glucose and ephedrine were employed. In such catastrophies, Sievers⁹ recommends the use of cardiazol intravenously. According to Martin²⁰ the use of avertin is contraindicated in brain tumor cases. Dandy²¹ uses it almost routinely as a basal anesthetic in his neurological service. With the use of smaller doses of avertin amylene hydrate this marked decrease in blood pressure is minimized, and at present we are not alarmed by blood pressure drops, provided the patient's color is satisfactory.

PREPARATION OF THE PATIENT AND AVERTIN SOLUTION.

Preparation of the Patient. The patient is prepared as for any type of anesthesia. The night before operation the patient receives a cleansing flush, because we believe that a clean colon is conducive to rapid absorption. On the morning of the operation the patient is given morphine and atropine about a half hour before the avertin solution is instilled into the rectum. The patient should be weighed accurately in order to judge the proper dose of avertin.

Preparation of Avertin Solution. As avertin is dispensed in liquid form, the preparation of the solution becomes a simple matter. There are a few points that must be remembered and constantly observed in order to prevent the decomposition of the drug into its harmful counterparts, hydrobromic acid and dibromacetaldehyde. The amount of avertin is estimated and the amount of distilled water necessary to make a 2.5 per cent solution of the avertin (amount of avertin fluid and water based on kilogram weight of the patient is furnished by the manufacturers, which further simplifies the preparation). The distilled water is heated to 40 degrees centigrade, or 104 degrees Fahrenheit (higher temperatures are to be avoided because of the danger of decomposition); then the avertin is measured (1 gram of avertin is represented by each cubic centimeter of avertin fluid) and placed in the warm distilled water. The mixture is then thoroughly shaken, the avertin rapidly going into solution. The solution should not be allowed to cool as the avertin is immediately precipitated out of solution. The solution must now be tested for purity before giving it to the patient. This is probably the most important step in the preparation. About 5 c.c. of the fluid is put into a small vial and 1 to 2 drops of 1:1,000 Congo red solution is added and thoroughly mixed with the avertin solution. If the solution has not decomposed, the solution remains reddish yellow. If decomposition has occurred, hydrobromic acid will be present and a violet color will result. If this discoloration occurs, the solution should not be given, as deleterious effects will occur. The most frequent cause of decomposition is overheating. When the temperature is raised above 45 degrees centigrade, decomposition rapidly takes place, and also, if exposed to light and air, the same thing occurs. We have repeatedly boiled the solution and tested it immediately and found no change in the color reaction with Congo red.

The solution is now ready to be instilled into the rectum. This is accomplished by inserting a rectal tube to which a glass funnel has been attached. By slowly introducing the solution into the funnel it flows into the rectum by gravity. After all of the fluid has been introduced the rectal tube is clamped with a hemostat and the tube is removed from the rectum when narcosis has been obtained. The avertin should be given at least 15 to 20 minutes before the scheduled time of the operation.

POSTOPERATIVE CARE.

The postoperative care of patients that have received avertin differs very little from those that have received the usual types of inhalation anesthesia. As all cases on our service are carefully watched until recovery from the anesthetic state has been completed and as recovery from avertin in our cases has been on an average of two hours, our ward routine has not been changed. In one to two hours after operation the patients receiving avertin have regained consciousness and begun to complain of pain in the region of the operative wound. Morphine is then given and repeated as often as necessary to keep the patient free from painful stimuli for a period of twenty-four hours. After this period, morphine is seldom necessary. To supply the necessary amounts of fluids, the rectal administration of saline or glucose solutions have adequately met the demands of the patients.

If the narcosis seems prolonged, which may either be due to over-dosing or to damaged excretory organs, the administration of the glucose intravenously (10 per cent) combined with thyroxin subcutaneously (Pribram¹⁷) will speed up the detoxication and facilitate excretion with resultant shortening of the recovery time. In one of our cases the postoperative narcosis lasted over a period of four hours. This was due to an overdose of the drug. This patient did not show any alarming symptoms and made an uneventful recovery.

Our series is too small to draw conclusions as regards postoperative complications; however, we have noticed that there has been a decrease in postoperative nausea and vomiting even in those cases requiring ether to reinforce the avertin. This in itself is welcomed by both patients and surgeon. There have been no postoperative pulmonary complications in this series. This, however, cannot be attributed to the use of avertin.

Contraindications. Patients with damaged liver, kidneys, old debilitated patients, patients with low blood pressures, and cardio-vascular instability, and patients with certain pulmonary affections where the respiratory surface of the lungs is decreased should not receive avertin as untoward complications may result, ending in disaster.

SUMMARY.

We report 53 cases in which we have used avertin as a basal anesthetic. Of this number 15 had complete anesthesia. Thirty-eight required supplementary anesthesia. Ether was always used as the reinforcing agent. The average blood pressure decrease was 17.5 millimeters of mercury. The average time interval for postoperative recovery from the effects of avertin was two hours. The type of the operations ranged from laminectomy to removal of an exostosis of the femur.

REFERENCES.

1. Blomfield, J. and Shipway, F. E.: The use of avertin for an anesthetic, *Lancet*, 1:546, 1929.
2. Eichholtz, F. and Butzengeiger, O.: Die Rectalnarkose mit E 107, 51 Tag. d. deutsch. Ges. f. Chir., 1927; *Abstracted Surg., Gynec., and Obst.*, 45:491, 1927.
3. Nordman: Discussion of paper by Eichholtz and Butzengeiger, reference 2.
4. Sauerbruch: Discussion of paper by Eichholtz and Butzengeiger, reference 2.
5. Reishauer: Discussion of paper by Eichholtz and Butzengeiger, reference 2.
6. Unger: Discussion of paper by Eichholtz and Butzengeiger, reference 2.
7. Melzner: Discussion of paper by Eichholtz and Butzengeiger, reference 2.
8. Druegg: Discussion of paper by Eichholtz and Butzengeiger, reference 2.

9. Sievers: Discussion of paper by Eichholtz and Butzengeiger, reference 2.
10. Krueter: Discussion of paper by Eichholtz and Butzengeiger, reference 2.
11. Morrin, F. J.: Rectal narcosis with avertin, *Irish J. Med. Sc.*, 6:256, 1929.
12. Blomfield, J. and Shipway, F. E.: Avertin anesthesia, *Lancet*, 2:978, 1929.
13. Hughes, B.: Avertin anesthesia, *Lancet*, 2:1220, 1929.
14. Edwards, G.: Avertin narcosis, *Anesthesia and Analgesia*, 9:119, 1930.
15. Straub: Quoted by Edwards, reference 14.
16. Gainsborough and Gardner: Quoted by Blomfield and Shipway, reference 12.
17. Pribram: Quoted by Edwards, reference 14.
18. Killian: Quoted by Herzberg, reference 19.
19. Herzberg, M. H.: *Pharmakologische Versuche mit Avertin*, *Deutsche med. Wchnschr.*, 1:1044, 1928; *Abstracted Surg., Gynec., and Obst.*, 48:354, 1929.
20. Martin, B.: Present day knowledge of avertin and its practical application, *Deutsch. med. Wchnschr.*, 2:2068, 1928; *Abstracted Surg., Gynec., and Obst.*, 48:354, 1929.
21. Dandy, W. E.: "Avertin" Anesthesia in *Neurologic Surgery*, J. A. M. A., 96:1860 (May 30), 1931.

DISCUSSION.

Dr. G. C. Anderson (New Orleans): The search for an ideal anesthetic has been going on ever since Long first reported ether. We have had a good many which were thought to meet the necessary requirements but most of them have passed on into oblivion. Up to the present time the ideal anesthetic, like most of our ideals, is something yet to be realized.

As early as 1846 ether was administered by rectum both the vapor and in aqueous solution but both proved too irritating to the rectal mucosa. In 1914 Walker introduced an oil-ether combination which seemed, to a large extent, to satisfy many of the requirements of a rectal anesthetic. However this produced occasional trouble and in an endeavor to get away from these complications and produce a greater margin of safety Willstaeter and Dousberg early in 1926 synthesized an anesthetic soon used clinically by Butzengeiger. Morizan described avertin as a "white crystalline powder which melts at a temperature between 79 and 80 C, fairly soluble in water, 2½ per cent at 20 C and 3½ per cent at 40 C. At a higher temperature these solutions decompose partially; a dibromide substance is produced and hydrobromic acid is freed. Solutions in alcohol lack stability at all temperatures and also old aqueous solutions especially if exposed to light." Lundy reported the solution neutral after 48 hours. Last year Lundy brought out a comprehensive review of

avertin up to that date and it is to his article that I am indebted for statistics presented.

Mushorn in 1928 reported 310 cases, in 15 per cent addition of a little ether was required, 8 per cent did not respond to avertin. It was deemed most pleasant for the patient but not the anesthetic of choice and he thought should be used only where there is a contraindication to inhalation, spinal or local. There are reports of two cases of hemorrhagic nephritis, one of suprarenal hemorrhage and five of hemorrhage. Hertzzen found that avertin instilled into the eye of a rabbit caused a conjunctivitis but could show no histologic changes in the mucus membrane of the rectum. In Dreissin's cases 33 per cent required ether, Haas and Conrad 50 per cent, Kohler 25 per cent, Nehrkron 85 per cent and Martin's 5 per cent. It is very difficult to draw conclusions from such widely diverging experiences. Killian in 1928 reported 3746 cases with 33 deaths 16 of which he charged to the anesthetic, 50 to 60 per cent of the cases showed cerebral excitation. Kohler reported 300 cases with no complications, Schultz 400 cases with no complications, Nehrkron 180 cases with no bronchitis except where ether was used, Butzengeiger 800 cases with no pulmonary complications.

Lundy divided the reported cases into groups according to the number of cases. In the first group of 1000 or more there were two series, one of 3000 with 1 death and one of 1000 with no deaths, a percentage of 0.25; in the second group of 500 to 1000 cases there 11 series making a total of 7746 with 5 deaths, 2 of which were thought to be due to the anesthetic, a percentage of 0.39; in the third group of 100 to 500 there were 39 series with a total of 9773 cases and 44 deaths, 31 charged to the anesthetic, percentage 1.33; in the fourth group of less than 100 there were 21 series with a total of 1407 cases, 11 deaths, 3 due to anesthetic, percentage 2.1. Shipway in England in 1929 reported 106 cases from Guy's Hospital. In no case was there cause for anxiety either before or during the operation; Young of Edinburgh had 154 cases, no deaths, Lewis 28 cases, no unpleasant sequelae. In the psychiatric clinic at Marburg 15 manic patients were kept asleep or drowsy for periods of from 2 to 10 days with no unpleasant effects.

In Dandy's clinic avertin has been used for nearly a year, I do not know the number of cases and no report has as yet been published. Dr. Dandy was satisfied with the anesthetic and not impressed by the slight drop in blood pressure which occurred. He sometimes found it necessary to give

ether but seldom more than a few ounces and that only in long operations.

The patients usually come to the operating room looking well, breathing regularly and sleeping soundly. We recently had an upsetting experience at Charity Hospital with a case scheduled for a posterior fossa exploration. The patient appeared to be all right and we were prepared to start the operation when the blood pressure cuff was applied as we keep records of the blood pressure during such operations. The interne reported he could get no reading and this was immediately verified. No heart sounds could be heard with the stethoscope. The patient was warm, her color good and she was breathing regularly. The head was lowered and ephedrin given, the temperature was normal, the breathing continued unembarrassed and after some 15 minutes her blood pressure began to register at about 40 systolic and then gradually rose. She was returned to the ward and some four days later explored under ether making an uneventful recovery. Dr. Gage felt there must have been an error in calculating the dosage but, of course, it was impossible to verify that. So far as I know that is the only case in Charity Hospital in which alarming sequelae have occurred. We have since used the anesthetic with perfect satisfaction. We feel we have in avertin at least a basal anesthesia which up to the present time has proven satisfactory, many operations have been completed with no supplemental anesthesia.

Dr. Ochsner (New Orleans): I merely want to emphasize a few points which Dr. Gage made. I do not feel that avertin is a fully proven anesthetic by any means; however, anyone who has used it will be impressed with it.

Avertin should be used guardedly and the point Dr. Gage made in reference to this should be observed carefully. I feel very much about avertin as Lahey does about spinal analgesia; it should not be used for those types of patients in which any other kind of anesthetic is not indicated. It should not be reserved for the poor risks; this type of patient does not stand avertin any better than other types of anesthetics. If we reserve avertin for this type we will get bad results. In the healthy patient avertin does produce splendid post-operative results. In from one to two hours they awaken out of a sleep which is perfectly natural.

The postoperative complications are certainly much fewer than we get in the ordinary type of anesthetic.

Dr. H. W. E. Walther (New Orleans): I would like to emphasize the value of avertin in painful examinations. I think it has a place where we are dealing with patients who must have something to relieve them besides ordinary hypodermics. I am very well satisfied with avertin in cystoscopic work, particularly in the examination of tuberculous and cancerous bladders, but it is impracticable where roentgen-ray study is contemplated.

I thought it would be interesting to report here briefly a case that had received avertin:

Mrs. L. V. C., aged 40, and the mother of nine children has been under my care for the past six years. She was delivered of her last three children during this time. She has bilateral renal calculi and a large stone in the lower right ureter. The best phthalein obtained upon her read 15 per cent. In the past 18 months it has remained around 5 per cent. Whenever she has high fever from right ureteral block, she is admitted to the hospital for cystoscopy. Some months ago, by mistake, she was given per rectum 2.8 c.c. of avertin sol. in 105 c.c. water, an hour before cystoscopy. She slept soundly for 36 hours, during this period she could be aroused only with difficulty. Her pulse and respirations were little affected throughout. If such a patient with serious renal damage can tolerate avertin, it must possess but little toxic qualities.

I have had the pharmacist at the Hospital prepare avertin solution just before I am ready to use it.

Dr. Gage (closing): In regard to Dr. Walther's statement that he uses avertin in small doses for painful examinations, the Germans frequently resort to its use in examining patients before students.

We believe that avertin is one of the best basal anesthetic drugs that we have, and suggest that it only be used as such.

We use as a maximum 100 mg. per kilo of body weight and so far have had no unpleasant reactions.

THE MARIAHUANA MENACE*

A. E. FOSSIER, M. D.,

NEW ORLEANS.

History tells us that about the year 1090 A. D., the military and religious order or sect of the Assassins was founded in Persia by Hassan ben Sabbat.

This diabolical, fanatical, cruel and murderous tribe, although isolated in the mountains of Lebanon, and in the valleys and glens of Persia and Syria became remarkable for its secret murders committed in blind obedience to the will of their chief, and the heinousness of its crimes was bruited the world over. Their numerous acts of cruelty cast dire panic and consternation in the stoutest hearts not only in Asia but in Europe as well. This branch of the shiite sect, known as Ismalites, was called Hashishan, derived from Hasish, a confection of hemp leaves, cannabis indica. From the Arabic "hashishan" we have the English word "Assasin".

It was their custom that whenever the Sheik required the services of an assassin, a distinctive class, the "fedais" were intoxicated with the hasish. When in this state they were introduced into the splendid gardens of the Sheik, and surrounded with every sensual pleasure. Such a foretaste of paradise only to be granted by the supreme ruler, made them eager to obey his command. With blind obedience to his slightest wish they willingly sacrificed their lives because of the belief, intensified by the influence of the weed, that the Holy Spirit resided in their chief, and that his wish was the will of God.

During the time of the Crusades, they resorted to every kind of violence. Their utter disregard for death and the ruthlessness of their atrocities presented a formidable obstacle to the arms of the Christians, because under the influence of hashish those

fanatics would madly rush at their enemies, and ruthlessly massacre every one within their grasp. It was only about the year 1272 that they were conquered by the Sultan Bibars.

Although cannabis indica has been accused of exciting the basest and most criminal tendencies in the minds of its addicts, at the same time some of the most brilliant creations of the human intellect, especially erotic in character, have been conceived in brains under the influence of that nefarious weed. This may also be said of nearly every intoxicant or narcotic.

It is claimed that the various tenets of the school of the philosopher Pythagoras were inspired by the influence of hashish. This weed known to the Greeks as "nepenthe" was lauded in the immortal Odyssey as a drug to lull all pains and anger, and to bring forgetfulness to all sorrow. And but comparatively recently it was praised by, and was a source of inspiration to many of its illustrious devotees, among whom must be noted the great Theophile Gautier and the renown poet Charles Baudelaire.

The manifold action of Indian hemp has been attested to in history and romance. Under its addiction the most brutal and bestial crimes have been perpetrated, armies were transformed into fanatical hordes, dervishes have performed apparently impossible feats of human endurance, and intellectuals have soared to the heights of imagination; withal, nations and races in the grasp of its nefarious influence have degraded to the lowest plane of civilization.

Marihuana, vulgarly called "muggles", is Cannabis sativa, derived from the flowering tops of the female plant of hemp grown in semi-tropical and temperate America. It was once thought that only cannabis indica grown in the far east was active, although the German hemp is inert, the American specimen, marihuana, is equal in potency to the best weed of India.

*Read before the Louisiana State Medical Society, New Orleans, April 14-16, 1931.

Whilst the intoxicating and narcotic properties of Indian hemp have been known and hashish has been in common use for time immemorial in the Orient, it was not until recently that this menace has assumed a formidable aspect in our southland. The facility with which it can be cultivated, because of the fertility of the soil, our semi-tropical climate and the ease with which seeds may be procured, make its prohibition practically impossible. The muggles habit once firmly established in this community will never be eradicated, and will quickly spread over the length and breadth of this country. This weed has already been found in some of the back yards of this city, and we can only imagine the extent of its cultivation. Despite all the police regulations and the state laws concerning its cultivation, use and possession, the traffic in muggles seems to be thriving here. It is impossible to make even an approximate appraisement of the extent of its use in this community, but we can readily surmise the magnitude of this danger when we consider that it is estimated that over two hundred million people constantly indulge in it in some form or other. In fact it has been said that what alcohol is to the Europeans, hashish and ganja is to the Indians and Egyptians.

This intoxicating weed can be taken in many ways, its preparation most commonly used is "ganja," an Indian name for a mixture of the stems, leaves and flowering tops of the cultivated female plant. Ganja is smoked in the form of cigarettes or with the pipe; its smell is typically offensive, and easily recognized by the initiated. It corresponds to what is locally known as muggles. Bhang or Siddhi, are also Indian names for the mixture of these dry leaves and capsules without stems, whether female or male, cultivated or in its wild state. It is the cheapest and the weakest of all the preparations of hashish, and it is taken as tea. The resinous substance which exudes from the flowering head of the female plant is called "choras." It is

either smoked or is taken in pills or in confections, or mixed with sugar or honey.

Locally its addiction is in the form of smoking. When it is snuffed it is readily absorbed by the nasal mucosa and has a more profound effect than when it is smoked.

In many respects the action of *cannabis sativa* is similar to that of alcohol and morphine. Its toxic effects are, ecstasy, merriment, uncontrollable laughter, self-satisfaction, bizarre ideas lacking in continuity, and its results are extreme hyperacidity with occasionally attacks of nausea and vomiting. It has also been described as producing, in moderate doses, from mild intoxication to a dead drunk, drowsy and semi-comatose condition, lapsing in a dreamy state with a rapid flow of ideas of a sexual nature, and ending in a deep sleep interrupted by dreams. On awakening there is a feeling of great dejection and prostration. Large doses produce excitement, delusions, hallucinations, rapid flow of ideas, a high state of ecstasy, psychomotor activity with a tendency to willful damage and violence, and a temporary amnesia of all that has transpired. In cases of prolonged addiction especially in the Malays, the somnolent action of *cannabis indica* is replaced with complete loss of judgment and of restraint, the same effect so frequently observed in alcoholic intoxication.

Captain Dhunjibhoy, Superintendent of the Indian Mental Hospital in Ranchi, says: "I shall not hesitate to believe any one who commits acts of violence under the influence of the drug and pleads complete amnesia of the crime on recovery."

From the same authoritative source the following is quoted: "I put this drug above alcohol, opium and cocaine, with regards to injurious tendencies in the causation of insanity in India." He states that hemp is a direct cerebral poison which causes the following types of insanity: 1, acute delirious mania; 2, chronic mania; 3, dementia.

He claims that the prognosis in these forms of insanity is as a rule hopeful, for in the acute state 90 per cent and in the chronic cases 40 per cent recover.

The underworld was quick to realize that mariahuana was an ideal drug to quickly cut off the inhibition, especially in the type of inadequate personality. Under the influence of cannabis indica, these human derelicts are quickly subjugated by the will of the master mind. The moral principles or training inculcated in the mind from infancy deter from committing willful theft, murder or rape, but this inhibition for crime may be destroyed by the addiction to mariahuana. Kingman says that in the suggestibility resulting from hashish intoxication, the last vestige of man's artificially acquired restraint is swept away. Thus it can be readily seen how many of these unfortunates with inadequate personalities, laggards in the struggle for existence, the majority of whom are the victim of psychesthenia, become engulfed in the abyss of drug addiction, and end their miserable existence either on the gallows, or in penal institutions and insane asylums. The moral and physical resistance to narcotics and alcohol is not only weakened but often destroyed in persons of stabilized personality, who are addicted, even to a moderate degree, to mariahuana.

I am indebted to Dr. George Roeling, coroner of the Parish of Orleans, for the following survey recently made in the parish prison of this city. The histories of four hundred and fifty prisoners show one hundred and twenty-five confirmed mariahuana addicts, from 18 to 31 years of age. Addiction was not found in any one beyond that age. It is twice more frequent in the whites than in the negroes.

The records of the district attorney during the past year reveal that 17 out of 37 murderers, 13 out of 145 forgers, 36 out of 195 imprisoned for grand larceny, and 21 out of 115 detained for assault and rob-

bery were addicts of muggles, and that 68 arrests were made for the sale and possession of mariahuana.

This survey shows that approximately one out of every four persons arrested in this city is addicted to mariahuana. The sixty-eight arrests made last year for the violation of Act 41, 1924, relative to possession and sale of mariahuana, which is doubtless only a small percentage of those engaged in the traffic, attest quite a large consumption of the drug.

As far as it can be ascertained this addiction has assumed formidable proportions since the advent of that "noble experiment" that fiasco, prohibition. In fact it is the offspring which bids fair to surpass its dissembling parent in destroying moral inhibition. The lesser of the two evil is alcohol. Whilst both induce a feeling of pleasure and contentment, moral degradation is the most salient feature of mariahuana, for the concomitant loss of social position because of a loose, irregular and frequently criminal existence, make these unfortunates a curse to their families and to their communities.

The debasing and baneful influence of hashish and opium is not restricted to individuals but has manifested itself in nations and races as well. The dominant race and most enlightened countries are alcoholic, whilst the races and nations addicted to hemp and opium, some of which once attained to heights of culture and civilization have deteriorated both mentally and physically.

Whilst it is most unfortunate for humanity to be subjugated by intoxicants and narcotics of any kind, which at this stage of our civilization seems to be a necessary evil, the possible substitution of alcohol for a greater evil should be considered the greatest possible calamity that can befall a nation. It is not confined to the criminal class.

Mariahuana is a real menace to this community. Despite every precaution school

children of tender age, have been detected smoking muggles. Dhunjibhoy states that indulgence in hashish is usually confined to males between the age of twenty and forty. And here in our city jails, it was not found in any prisoner over thirty-one years of age.

Our city authorities are thoroughly aroused to the seriousness of the situation and are doing everything within their power to cope with this growing menace. It is rapidly reaching beyond the city and state and now demands national control. It behoves this society to give this matter its careful attention, and use every means in its power to induce the national government to include mariahuana in the Harrison Narcotic Act.

England has recognized the seriousness of the problem and in the year 1925 has included cancrabis indica in its dangerous drug act.

The commissioner of public safety, Dr. Frank Gomila, has taken a deep interest in this subject and directed a great deal of time to its study. I feel much indebted to him and to Miss M. Gomila, assistant city chemist, for their valuable assistance.

DISCUSSION.

Dr. G. F. Roeling (New Orleans): I deem it a pleasure and privilege to be called upon to open discussion on so important a paper, and so timely and so ably presented as Dr. Fossier has presented here today.

Dr. Fossier has outlined to you the amount of menace mariahuana constitutes. It may be well that I relate to you briefly my experience, and I think it will forcibly impress upon you the importance of the mariahuana situation in this section here which I deem largely due to the fact of our seaport facilities for getting the drug.

When I was elected Coroner of the Parish of Orleans and during the period of awaiting my induction into office, I surrounded myself with medico-legal problems and studied them from various angles and various standpoints. I went into the study of every form imaginable that we would have to combat in safeguarding our people from crime producing individuals. I went into the study of drug addiction, and into the study of mental

diseases from the criminal aspect, but at no time did the subject of mariahuana come into my consideration.

Hardly had a few hours passed after my induction into office when specimen was sent to me for identification of the drug. Individuals were sent to me for examination to determine whether they were mariahuana addicts or not. Attorneys began to use this type of drug addiction as a means of defense for their clients in criminal court procedures. This act was only originated in 1924 which made it a penalty to possess or sell mariahuana in the state of Louisiana. My induction into office was in May, 1925, so you can readily see what a short period of time existed between the origination of the law and my induction into office.

I immediately made a survey of the literature on the subject and found it to be nil. The nearest I could get to a subject of any satisfactory point was that of the United States Dispensary, and that was obsolete in its formation. I immediately called upon my old professor, Dr. A. L. Metz, who was about as limited in literature as I was but who had quite a bit of knowledge and experience because of his position in chemistry and otherwise in making a study of the drug. But neither of us knew very much of the physiological action of the drug until we combined our efforts in studying the actual physiological effect of the drug.

Dr. Fossier, in his paper, brought out a few interesting points in regard to the physiological action of the drug. We can consider the action of this drug upon the human mechanism as we would consider the acceleration of an automobile with the clutch out. We feel that this mariahuana drug stimulates the cortical cerebral centers and inhibits the controlling sub-cortical centers of our mechanism which is responsible for this rapid flow of ideas, the immense visualization of these individuals, the bolstering up of their courage, and the various phenomena which will eventually give them courage and lead them into the most crime producing individuals that we have.

Dr. Fossier gives you a memorandum of 200,000,000 people in the world using mariahuana. Dr. Fossier has brought out the striking statement that between the two evils, alcohol or mariahuana, the mariahuana is by far the greater menace. I agree heartily with Dr. Fossier.

I readily realize—I believe we all do—that we have certain types of individuals who live in our communities who are of such mechanism that they need some form of stimulation in order that they

may properly cope with their situation. Whether that be alcohol or whether that be marihuana, they are going to consume the one that is the easiest to be had and the cheapest and most accessible to their command.

Between the two, I would certainly much prefer having an alcoholic individual to contend with than I would a marihuana individual. Yet in handling the marihuana addict you can confine him to the Parish prison and take him off the use of the drug without any ill effects except a certain amount of craving, but there is no physiological disturbance in his mechanism after he has been taken off the drug.

I certainly want to compliment Dr. Fossier for the thoroughness with which he has presented his paper, and the interest he has given to this subject because I feel that we as medical men, and particularly myself in the position I hold, are confronted with this very important factor in our daily lives. I want to thank Dr. Fossier for presenting the subject.

Dr. F. R. Gomila (New Orleans): Marihuana in our section is certainly beginning to give us a great deal of trouble. I have instructed the Police Department to pick up all of the vendors of the drug and to go further into details in attempting to find the location of the existence of marihuana in our city. As you know, the Police Department is on edge attempting to destroy the sellers of the drug in the city.

Marihuana, to my mind, should be put in the same class as heroin. It serves very little medical purpose and should be removed from the market. Before the conclusion of this session of the State Society I would like to have some definite action taken whereby the Society would go on record asking the Government to take cognizance of the situation as it is today.

Just outside of New Orleans on both the lower section and the upper section are vast fields of this weed that is growing, and unless something is done along the lines of gigantic enforcement (and I believe that could only be accomplished by the Government) marihuana is going to continue to be a severe menace to our community and to these United States.

I want to say in conclusion that I will appreciate it if the Society will recognize the fact that marihuana is in the same class with heroin and that an attempt should be made to remove it from the market.

Dr. F. F. Young (Covington): As the President has said, we are already over our time, I shall be brief. I would not have made any re-

marks had I not been requested to do so, by my friend, Dr. Fossier. It is not known apparently where the word marijuana or marihuana (both terms are correct) originated or its definition—a letter from the botanical division of the Department of Agriculture of the U. S. Government states that they have been unable to find anything on the subject, in the literature, in their possession. We must recognize that marijuana as grown in Mexico or Louisiana is in reality *Cannabis sativa*—*Cannabis indica* and the others are also *Cannabis sativa*. This plant grows from Africa to Russia and from the Alps to Kentucky, from Kentucky to Louisiana, from Louisiana to Mexico—if there is a plant indigenous to every part of the world, I suppose this one comes as near filling it as any. The lay term is hemp. In Russia the plant grows very vigorous and ordinary hemp rope is made from it—the products from *Cannabis sativa* grown in India, are those used entirely, almost, in medicine. There, as we know, it is called *Cannabis-Indica*. Fifty one years ago Dr. H. C. Wood, the author on a work on *Materia Medica* and *Therapeutics*, was invited from Philadelphia to Columbia University, New York, to describe his experiences upon himself, in the study of *Cannabis Indica*—I refer you to this work, if you wish to read something interesting and charmingly descriptive. Major S. A. Billings, who was in the Medical Corps, with Pershing's Army, on the border of Mexico, when an attempt was made to arrest Villa, has stated to me, that certain individual types of soldiers took to smoking Marijuana like ducks take to water. After smoking it, they would become hilarious and dangerous and had to be locked in cells until sobered up. In the last thirty eight years, we have treated approximately seven thousand drug addicts and my classifications of this disease today would be quite different from then. Thirty five years ago classifying addicts numerically, morphine would have gone down first, cocaine second, chloral third, bromide fourth, with a small number from other drugs. Today, I would be disposed to place at the head of the list, the barbatal group, marijuana second, etc. Regarding marijuana addicts, from what we have seen and from what we have gathered from authoritative sources, it is exclusively used by smoking. All that such addicts we have seen were in young persons, under twenty five, who were defective in the brain and nervous structure before they began smoking this weed—they belong a type commonly called "moral imbeciles"—they give a history of being incorrigible at home and at school and as they grow into manhood become criminally inclined—the marijuana addiction aggravates this very much. From what we have seen, these smokers are criminals before they become addicted to the weed. There is a peculiar

laugh, of these addicts, that when once heard, can never be forgotten, I mean when they are on a drunk from its effects. In conclusion I want to state that the flowers of the female plant once pollenized by the male pollen has no longer any medicinal virtue. I enjoyed Dr. Fossier's paper very much—it is food for serious thought. I thank you.

Dr. Fossier (closing): I want to thank very much those who have discussed my paper.

If over night, after the advent of prohibition, this nation became so adept in the brewing of beer, the making of wine and the distilling of alcohol, so much so that even children are adept in their manufacture, what will happen in the near future, with such a dangerous plant that may grow in our very back yards.

Dr. Roeling is correct when he said that marijuana is the accelerator to a criminal nature, especially when the inhibition of that individual is low.

I feel, gentlemen, that the Society should take an active part to eradicate this growing evil and it is for this reason that I am presenting a resolution to the House of Delegates, and I hope they will give this matter their kind attention.

CARCINOMA OF THE LIP—RADIUM TREATMENT.*

M. T. VAN STUDDIFORD, M. D.,

NEW ORLEANS.

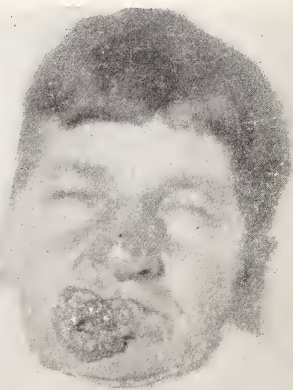
Carcinoma of the lips is fairly common affection occurring in all walks of life, among the clientele of any medical practitioner. It spares neither the rich nor the poor; is more among men by fifty to one; occurs about ninety-five (95) times on the lower lip to five (5) times on the upper lip. It should be of interest to everyone as physicians and as probable victims.

Two forms of lesions occur: the papillary form appears as a wartlike thickening which long remains elevated. It extends slowly in all diameters as a flat thickening in the epidermis and is slow to invade the deeper tissues or lymph-nodes. Later, it may ulcerate and follow the usual course of

infiltrating epithelioma. It yields to conservative treatment and should be distinguished from the more malignant variety.

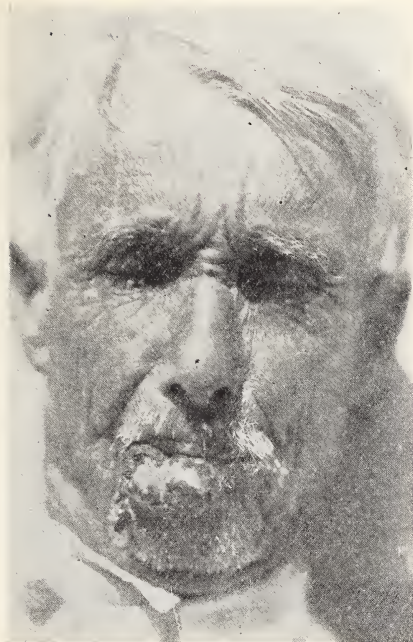
The infiltrating variety may appear as a flat thickening of the epithelium or as a nodular growth invading from the first the submucosa, and lying beneath rather than in the epithelial layer. Early ulceration produces a broad, deep ulcer, with pearly indurated edges, or a more bulky excavated tumor which may become fungating with extension to the floor of the mouth, involvement of periosteum and early invasion of the sub-mental, lingual and maxillary nodes. This metastasis may be to the nodes on the corresponding side or on the opposite side from the lesion. The group of nodes involved is about evenly divided.

Secondary infection, usually *Streptococcus pyogenes*, plays an early or late part in the disease and leads to local suppuration, erysipelas, septicemia, thrombosis of vessels, edema of the glottis and pneumonia. Errors in diagnosis: Leukoplakia, capillary angioma, granulation tissue (blastomycosis, glanders, Vincent's and leukemia) and syphilis often appear on the lip in lesions difficult to differentiate from carcinoma.



Fungating type of epithelioma which should have received large doses of radium and then block surgical repair.

*Read before the Louisiana State Medical Society, New Orleans, April 14-16, 1931.



Large epithelioma in the pink sensitive skin individual. This type patient has poor resistance.

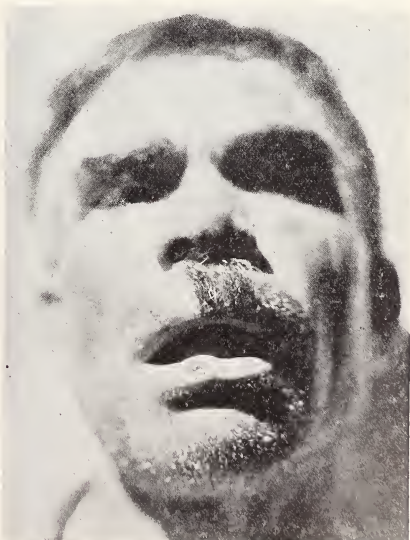
A Wassermann should be done on all patients irrespective of social position. Small sections should be sent to the pathologist for study and diagnosis.

Smoking has been upheld as the one great factor in producing carcinoma of the lip, so much so that it has been called "Smoker's cancer." However, chronic sunburn or weather exposed, thin, sensitive lips, irritated by poorly arranged, sharp-edged teeth, bathed in pyorrhea, are made more susceptible to carcinoma. Of late the hygiene of the mouth bears an important role in cancer prevention. In carcinoma, as in many diseases, syphilis is a chronic offender and adds to the morbidity, rapidity of growth and slowness of healing.

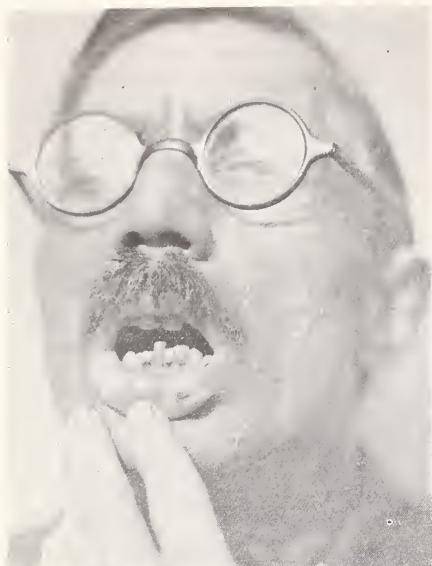
Treatment depends upon the amount of radium and its form or arrangement in applicators. Radon is not considered in this treatise.

A patient with a flat papillary carcinoma of the lower lip, there being no ulceration, is a selected case for superficial (Beta-ray radiation) such as with the half-strength radium plaque. Filtration in this type is little more than 2 m.m. rubber as the lesion is hardly more than a dry leathery area. Where some noticeable thickening is encountered, a more quantitative dose is required. Radium tubes filtered through 1 m.m. brass, placed on a gauze pack or dental compound at 1 cm. to 3 cm. distance is used by cross-firing the lesion. Radium packs or filtered roentgen-rays may be placed over the submental, lingual and maxillary node areas as a precautionary measure. The patient is given the advantage of this precautionary treatment even if many of the lesions are innocent, non-metastasizing.

In the infiltrating, squamous or epidermoid variety of lesions, tumor formation with or without ulceration, demands energetic therapy; dosage that does as much or a bit more than you judge is needed. Err always by over-dosage when in doubt. You



Fairly early epithelioma. Hard to differentiate from group of granulomata.



Sharp-edged ill-fitting teeth. Bathed in pyorrhea, causing an irritation which developed epithelioma of the lip.

may have enlarged lymph-nodes which may be metastatic or only inflammatory.

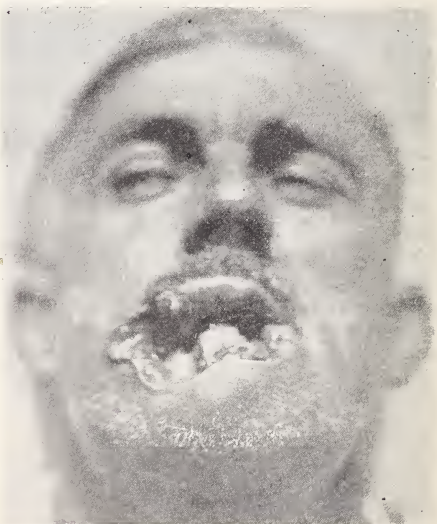
Either apply radium tubes over the lip by cross-firing or place in the lesion itself interstitial radiation, planting needles through the mass; radium needles inserted at a distance of $\frac{1}{2}$ to 1 cm. apart. Precautionary radiation of the lymph-nodes areas and removal for diagnosis of any enlarged nodes. If metastatic, increase the radiation over all lymph-node areas with removal of all nodes.

The far advanced infiltrating variety with bulky friable fungating lesions involving a major amount of lip tissue should receive external cross-fire radiation, interstitial needle radiation up to the stage of cauterization of the mass and pronounced reaction in the bordering tissues. The mass should then be removed, followed by early repair of the tissue lost. This plastic operation should follow before the blood supply has been so constricted by radiation that tissue sliding or pedicle grafts will not starve. Lymph-node involvement should

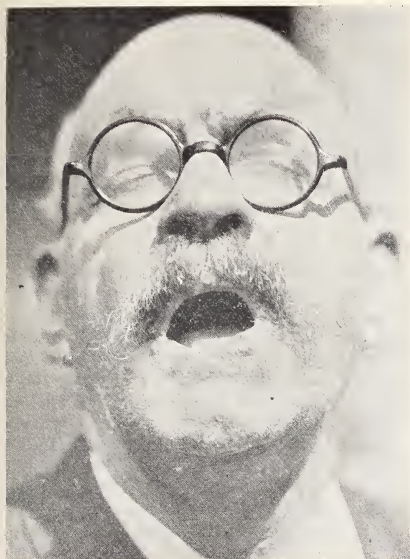
receive radium or roentgen-ray filtered distant radiation as in the above class.

Early repair causes a rise of morale with the patient. Irritating saliva is inhibited from dribbling over the raw wound or lesion, and mastication of food is better carried out. Therefore, a fair guide to radium treatment of the lip would be: an erythema dose of Beta-ray $\frac{1}{2}$ strength radium plaque 2 mm. rubber filter for the slight flat leathery lesion, and on the papillary and early infiltrating lesions treat with interstitial radium needles radiation delivering from 50-80 mc. hours to each square cm.; and in the large bulky friable fungating lesions as much as 100 mc. hours to each square cm.

The dosage for cross-firing by radium tubes 100 mc. hours per square cm. is a medium dose. Lymph-node area is given from 2000 mc. hours to 3000 mc. hours by packs at 5-7 cm. distance, using pith wood blocks or gauze as filters. Always remember the effect upon the thyroid gland and protect with a lead filter.



Results of improperly treated patient. Still is free of lymph node enlargements.



Luetic lip treated by cancer paste quack with loss of most of lip. Healed by anti-luetic therapy—Then had a plastic operation.

COMMENT.

The life and future happiness of the patient is one's first concern; therefore, cures are more important than temporary cosmetic results.

The surgeon, radiologist and pathologist should work hand in hand. Many more patients can be cured by combined efforts.

Cancer paste is painful, mutilating and of use in only a select group of hopeless lesions in the hands of one experienced in its use.

Broders classification of carcinomatous growths is of aid for prognosis.

Pathological sections of lesions should be made when possible. A Wassermann reaction should always be made. Mild anti-luetic (protiodid of mercury pills) is routinely given because of the large per cent of double affections. This is continued for at least one month. Each large medical center needs enough radium to produce radium emanation applicators. Radon seeds have more accessibility than the needles of the

radium salts. Neighboring small institutions are compelled to send to a great distance for Radon seeds and the loss by days in shipment is too expensive. An emanation station in our midst could supply two or three states with less than twenty-four hour service. Better results are being reported each year in the treatment of carcinoma of the lip, but the patient is delayed too long before he receives proper adequate treatment. The remedy for this is: Better, quicker diagnosis. Education of the public to be more alert and introspective for lip cancers. Better care of teeth, mouth and lips.

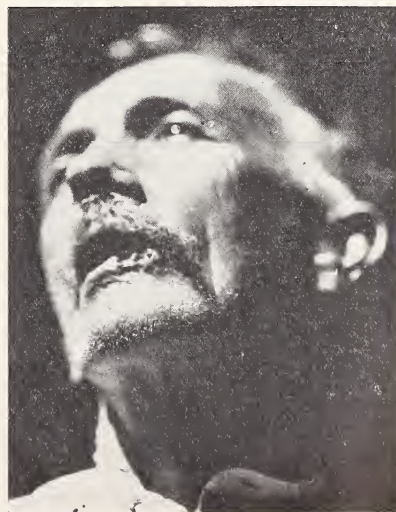
BIBLIOGRAPHY.

Broders, A. C.: Squamous cell epithelioma of lip. J. A. M. A., 74:657, 1920.

Ewing, James: Neoplastic diseases. Vol. III.

DISCUSSION.

Dr. H. E. Menage (New Orleans): The surgeon was at one time very emphatic in his attitude on lesions of the lower lip; his opinion then was to excise them promptly and clean out the lymphatic nodes of the neck. Since irradiation therapy has become more and more developed, his attitude has greatly changed and he has come to



Friable fungiating excavating epithelioma. Large dose of radium to lip and lymph node areas. Plastic surgery.

admit (as it seems from many sources) that it is the best treatment for them. In my humble opinion I cannot agree with those who believe that way, nor with the radio-therapist who says categorically that radio active treatment is the only one for carcinomas of the lip. I still believe that surgical treatment occupies a big place in the handling of such cases but, wish to add parenthetically, that I want to select one well equipped with surgical experience and a thorough knowledge of the lymphatic system of that region, a casual and incomplete review of which would not be out of place at this moment.

Excerpts taken from the study of the lymphatics of the neck by Dorendorf:

No. 1. The lymphatics of the upper lip regularly proceed to the sub-maxillary group.

No. 2. Those of the lower lip regularly enter the sub-mental and sub-maxillary groups.

No. 3. For the upper lip and mucous membrane of the lower lip the lymphatic drainage is regularly unilateral for each half.

No. 4. For the skin and muco-cutaneous border of the lower lip the lymphatics discussate very freely and drainage takes place to both sides of the neck and even to the deep chains of the same side or to the opposite side of the neck.

No. 5. Finally some vessels from the upper lip and the corner of the mouth proceed to the lower pole of the parotid gland.

When irradiation has been selected as the preferable treatment what I said about the surgeon applies with equal force to the radiotherapist; he should have command of enough radium to do the work properly or a roentgen-ray outfit of modern type which will deliver the quantity and quality of rays needed in such cases. For those of us who are still willing to accept the following excerpt from Channing C. Simmons & Jas. C. Hudson at its par value, it would be a part of wisdom to call upon the surgeon for help and make use of his skill and knowledge of surgical anatomy to complete the good work started by the radiologist: "clinical experience has been in substantial agreement that squamous cell epithelioma of the upper lip are infrequent and the surgical problem is mainly with the lesions of that type in the lower lip and further, that it is also pretty generally conceded that cancer cells cannot be completely killed in the lymph nodes by radiation although the growth may be inhibited by the limiting fibrosis set up."

It must also be remembered that the 15 to 20 per cent of the clinically diagnosed baso-cellular types found in the lower lip are in a transitional

stage of baso-squamous development and therefore metastatic in tendency.

In conclusion, it seems to be the treatment of carcinoma of the lips cannot be arbitrarily disposed of by any set method but that the safety of the patient and the best results will be obtained by most complete co-operation of the surgeon and the radiologist, with due regard to the pathologist.

Dr. S. C. Barrow (Shreveport, La.): I have treated carcinoma of the lip for a good many years by a good many methods, and I have observed other methods of treatment employed by other men. My final conclusion is that no method is equal to simple electro-coagulation, under thorough anesthesia. It gives a higher percentage of permanent cures than any other method, not excepting irradiation. Of course, when carcinoma of the lip is confined to the superficial surface, it is a superficial lesion and is easily handled. But how often is it really confined to the surface? And how are we going to tell when it is and when it isn't? Clinical experience tells us that growths that we consider local are very frequently the reverse. Electro-coagulation in carcinoma of the lip gives a minimal amount of deformity and final distortion. The inflammatory reaction that follows it stimulates tissue repair, whereas the action of radium is simply necrosing. In the course of three or four months after electro-coagulation it is astonishing to see how nearly normal the lip is in outward appearance. Of course, this method is preceded by a most intensive irradiation of the lymphatics of the neck and of the chest. It is impossible, otherwise, to be certain that the metastases which so frequently exist are being properly cared for.

As to deep ray therapy, there is no difference, it is known, between deep or high voltage and low voltage when once the spot or point of attack is reached. The effect is precisely the same.

I cannot believe that surgery has today any place in the treatment of carcinoma of the lip, except possibly from the cosmetic angle. For my own part, I am unwilling, after a lip is healed, to see it broken down again by methods of dissection necessary in cosmetic surgery. In the process of repair after any surgical procedure, blood and lymph are particularly abundant at the point of repair, and blood and lymph are the substances cancer cells thrive best on. Such a procedure reminds me of scratching the soil around a plant and watering it to make it grow. That is all right in the garden but all wrong in cancer.

I am so interested in this subject that I am saying as plainly and abruptly as I can that there

is nothing that is holding us back more in the matter of cancer therapy than the attitude of certain surgeons. There are men and women in this country today with curable cancerous lesions who are refusing to see doctors because they are so sure that they will be told to submit to surgery. That is the chief thought in the back of their minds. If surgeons will grant the value of other methods that are less disturbing to the public mind, then we shall get these patients earlier, before there are sloughing, nasty, foul lesions to be dealt with and when cure is possible and probable. We need to co-operate with each other in these matters, and the radiologist is ready to co-operate. But if by co-operation the surgeon means that the radiologist can do nothing until he gives the word, then co-operation is not possible, for that is not the radiologist's idea of it. I firmly believe that it is only a question of time until the profession in this country will admit what is far more generally admitted in Europe, that irradiation is the leading method of cancer therapy.

Dr. Isidore Cohn (New Orleans): Recently I had the good fortune to visit the Memorial Hospital in New York, where probably more cases of cancer are treated than anywhere else in the United States. I happened to be there one morning when Dr. Douglas Quick was in charge of the conference and when his special group was demonstrating a series of cases. Since then a report of their work has been published in the *American Journal of Cancer* and also in the *Annals of Surgery*, and I recommend it to your attention.

At this hospital all cancers of the lip are divided into two groups, the infiltrating group and the fungating group. The latter group is handled by surgery, excision followed by plastic operation and irradiation. In the first group the routine treatment is essentially the irradiation advocated by Dr. Van Studdiford, except that they are using radon rather than the radium element or salts. They make use of surface applications of heavily filtered radon on three sides of the growth, held in place with dental modelling compound applicators. They are able to use this method because they have 4 grams of radium and they have their own emanation plant. Burnham prefers the glass tube, but Dr. Quick uses gold or platinum.

From the surgical aspect one point is very important: when the glands are freely movable and have not broken through the capsule, unilateral dissection is well worth while. When the capsule is once broken through, there is no place for surgery. At the Memorial Hospital the limit of surgery is usually the dissecting out of the digastric triangle on one side or both, according to the indications.

Dr. I. M. Gage (New Orleans): For the past seven years I have been in charge of the cancer ward at Charity Hospital, which ward is devoted to the treatment of inoperable carcinomas of the face and neck. During this period there have been a large number of cases admitted to the service. All of these patients have had extensive cervical metastasis associated with a progressive primary focus. A few, however, have had complete eradication of the primary focus. The majority of the cases have been treated with radium, roentgen-ray, surgery, or a combination of one or more of these procedures. The results were practically the same in all the patients; i. e., they all had recurrences at the primary site of the lesion as well as extensive metastasis.

If I had to have carcinoma, and could choose the location, I would choose the lower lip for the following reasons: The primary focus can be recognized when it is of almost pre-cancerous stage; the growth as a rule is slow and the secondary metastases occur late; it is usually confined to the lymph nodes of the same side; distant internal metastasis is rare (according to Crile, in a series of 4,500 autopsies on patients dying from carcinoma of the head and neck less than one per cent had distant internal metastasis); and both the primary focus and the regional lymphatic involvement can be eradicated with excellent chances for permanent cure, even though the disease has been present for some time.

In the treatment of carcinoma of the lower lip, the clinical as well as the microscopic classification should be taken into consideration. The clinical types are three in number: the ulcerative, the infiltrative, and the papillomatous. The ulcerative and papillomatous types are usually of very slow growth, especially the papillomatous. The latter type does not respond well to treatment by radiation, whereas the infiltrative and ulcerative types do respond to radiation, and as a rule a cure of the primary focus can be obtained by radiation alone. The papillomatous type seems to respond better to surgical extirpation, followed by radiation. The infiltrative type responds to radiation better than the papillomatous type, and should, therefore be treated by radiation unless the lesion is very large and surgical extirpation is indicated. In all three types the lymphatic drainage of the lower lip should be thoroughly understood in order that secondary foci can be treated thoroughly. Carcinoma of each lateral half of the lower lip drains into the corresponding lymph nodes of the same side and also the submental group, whereas carcinoma of the mesial part of the lip drains into the submental group and into both sides of the neck. If this is remembered, the secondary foci can also be eradicated.

Unless the lymphatic drainage is taken into consideration and treated, we will have a high percentage of cures of the primary site with a very low percentage of permanent cures, due to subsequent lymphatic metastasis and ulceration, because when the lymph nodes of the cervical region are unilateral or bilateral, becoming fixed to the surrounding tissue, eradication of the disease as regards a permanent cure is almost impossible. I do not believe that we should sanction any one type of treatment for carcinoma of the lip, but a combination of all standard treatments, radium, roentgen-ray, surgery, and electro-coagulation, should be used to suit the individual type of growth. Dogmatism for treatment in carcinoma of lower lip is not permissible at this time.

Dr. Harold G. F. Edward (Shreveport, La.): Neoplastic disease is being attacked today from every angle, and the American College of Surgeons favors, if it does not demand, the establishment of tumor clinics in every institution on its approved list. Carcinoma of the lip, as Dr. Van Studdiford has said, cannot be treated routinely. Every case must be individualized, and the individualization depends, first of all, upon biopsy, by which the nature of the cell structure is determined. Biopsy is a perfectly safe matter with the high frequency current or radio knife.

Lesions which show very little new tissue growth are best treated, as a rule, by either radium or roentgen-ray. My preference is roentgen-ray, using heavy filtered dosage to the lesion and the lymphatics and glands draining the site of the lesion. Lesions which show a considerable new growth are best treated by removal, preferably by electrotherapy, after which either radium or roentgen-ray is applied. If emanation therapy is available, it is the ideal method, following the idea of Regaud, that a small dosage over a long period of time reaches the mother cells in the process of division and so gives the best results.

Personally, I see no place for surgery in this disease. Very few surgeons are capable of doing an extensive block dissection as it should be done, and no matter how skillful they are, they cannot dissect out all the microscopic metastatic areas. It is a too common occurrence for the surgeon to refer a case to the radiologist after he has treated it his way. If irradiation is of prophylactic value, surely it has a curative value.

I agree with Dr. Van Studdiford that oral hygiene is of vast importance. There is no special use in removing an epithelioma and permitting bad teeth to remain. The condition is too prone to recur. Indeed, I am in hearty accord with all of the methods he advocates in the treatment of carcinoma of the lip.

Dr. J. N. Roussel (New Orleans): If there is a subject on which I am convinced the Frenchman is right when he says "chacun a son gout," which means, "Let each man do it his own way," it is this subject of carcinoma of the lip. Getting rid of the initial lesion is almost an academic matter today. Anybody can do it, and the method doesn't specially matter. But after that comes the most important point.

The gentleman who preceded me in this discussion said there was no place for surgery in the treatment of carcinoma of the lip. I think he is wrong. I think the sooner a patient with epidermoid carcinoma sees a good surgeon, the better his hope of a cure is. You will note that I said a good surgeon; I don't mean a tyro. I mean a man who knows his business, who knows anatomy and pathology.

When patients with carcinoma begin to have pictures taken of their chests, that is the beginning of the end, and my own feeling is that when the first picture is taken, the radiologist ought to get word to the undertaker, for he will have to take the job in hand in a very little while.

Dr. H. B. Gessner (New Orleans): I rise merely to take up the matter of the V-incision, which has been criticized adversely in this discussion. It certainly has its faults, and it is likely not to include all the cells spreading out from the cancer lesion, but I would point out that surgery of carcinoma of the lip is not limited to the V-incision. It is quite possible to make a quadrilateral incision, and this is what should be done in the greater number of cases. Dr. Grant of Denver taught the profession this incision years ago.

Dr. M. T. Van Studdiford (closing): I am very glad that my paper produced the discussion that it did, for I think one of the chief troubles in the treatment of carcinoma of the lip is that we are all too much inclined to stick to our own line, be it roentgen-ray, radium, surgery or electro-coagulation. Dr. Cohn's discussion shows the big advantage of a general outlook, the advantage of having somebody to help you. The Memorial Hospital has money, an ample supply of radium, finely equipped laboratories, and a staff of expert men, who give the patients the benefit of their combined experience. It is a wonderful thing to see them working together, using the methods best adapted to each special case, and it is a wonderful thing to see how their results have improved over a period of years.

As Dr. Cohn says, they can use the emanation method because of their huge supply of radium. After they have dissected out encapsulated, unruptured lymph nodes, they are able to irradiate along the lines of the dissection with the assurance

that, because of their refined technique, necrosis is not going to occur. Surgeons who have not their facilities cannot use this method. As to roentgen-ray, it makes little difference whether the deep ray is used over a short period or low voltage over a long period, provided the technique of application is understood.

Dr. Gessner's discussion reminds me that Dr. Quick has devised a new operation for the dissection of the lip and plastic repair, which is described in the first issue of the American Journal of Cancer, and which is far superior to the old V-incision, which, as a matter of fact, left the cancer cells outside of it.

BACTERIOLOGY AND PATHOLOGY OF UNDULANT FEVER.*

L. A. HEBERT, M. D.,

LAKE CHARLES, LA.

In presenting this paper, the writer makes no pretense of originality either in style or subject matter. The contents, on the contrary, comprise a summary of correlated facts derived in a search of the literature, presented in hope of creating and stimulating interest.

In December, 1886, Colonel Bruce¹ first observed minute organisms in the spleen removed from a patient who died of undulant fever.

The following year he cultivated an organism recognized as a small coccoid body, but later pointed out that bacillary, as well as coccoid forms occur. In 1897, Bang² described the etiological agent of contagious abortion in cattle. He observed that in infected tissues the organisms appeared coccoid in shape. After isolation, however, he determined that he was dealing with a "small bacillus" for which the name *Bacillus abortus* was soon widely accepted. For more than twenty years, these two organisms, so differently named, and observed and studied by different groups of bacteriologists, continued to be regarded as entirely unrelated species. "It was as if twin brothers had been adopted by different families and given different surnames, and

for twenty years no one recognized the similarities in the boys because they were seen at different times and in different places." It was Miss Alice Evans,³ who, in 1918, pointed out that these organisms were morphologically, culturally and biochemically indistinguishable, and serologically very closely related. This observation has been repeatedly confirmed and with this discovery the newer knowledge of undulant fever begins.

Meyer⁴ in 1920 recommended the formation of a new genus for these and related species and proposed the name *Brucella*, in honor of Colonel Bruce. This suggestion has been approved and the name *Brucella melitensis* adopted for *Micrococcus melitensis*, and *Brucella melitensis* variety *abortus* for *Bacillus abortus*. The latter variety was again divided into bovine and porcine types. The porcine⁵ type was isolated in 1914.

It is important to note that McAlpine and Slanetz have recently discussed the possibility of a still more simple classification by the use of biochemical methods. They were enabled by careful determination of nitrogen fractions in cultures to classify the genus *Brucella* into two main groups, namely:

1. *Brucella abortus* (bovine origin).
2. *Brucella abortus* (porcine and human origin and *melitensis* strains).

Discussion of genus *Brucella* would be incomplete without reference to:

1. The para-*melitensis* group.
2. So-called "*Brucella bronchiseptica*."

A. V. Hardy⁶ says, a classification of strains isolated from human beings cannot now be regarded as a reliable index of the importance of the different varieties as a cause of human disease.

All the characteristics by which microorganisms are commonly differentiated these three varieties of *Brucella melitensis* have in common. Morphologically they are

*Read before the Louisiana State Medical Society, New Orleans, April 14-16, 1931.

small, 0.5 microns, or less, in diameter, to 2 microns long, non-capsulated, non-motile and Gram-negative. Coccoid and bacillary forms occur as well as intermediary oval shapes. They do not form spores. The slight differences in shape are apparently inconstant and are not generally regarded as of value in classification. They usually occur singly or in pairs, though in cultures short chains have been found. On potato there is a slight grayish brown growth after several days, and subsequently the brownish tinge discolors the potato. Culturally, growth takes place slowly in a liquid medium, rarely being apparent earlier than the fourth day, and occasionally not until after ten days or more. Gelatin is not liquified. No indol reaction is produced. The colonies are at first small and transparent dewdrop forms. On agar, the colonies on first subculture usually make their appearance in from 48-72 hours and slowly increase in size. Neither acid nor gas is produced by any variety in the ordinary fermentation tests, and by simple agglutination procedures, the strains cannot be differentiated, according to Evans.

Fresh beef liver infusion pH6.6 (Huddleston) should be used. Prolonged incubation is necessary, and sub cultures from the broth may be made between 4-7 days, for the last time after 14 days incubation before reporting negative cultures on blood. Some strains are 21 days in developing.

Differences in CO₂ requirements must be remembered. For identification, duplicate cultures should be made, one incubated in air, the other in an atmosphere of increased CO₂ tension by the Fitch method, or by adding an acid to a carbonate held in a small container or in a museum jar. Best results are obtained with from 5-10 per cent CO₂ by volume.

By agglutination absorption, the melitensis and abortus varieties may be separated, but the porcine and bovine types are by this method indistinguishable. An important, though inconstant, difference is

found in the requirements of CO₂ for growth. Bovine characteristically demands an atmosphere with an increased CO₂ tension, while melitensis and porcine abortus grow in an unmodified atmosphere and are somewhat inhibited by CO₂.

Using medias modified only by the addition of thionin, methyl violet or basic fuchsin, Huddleston developed a simple method for use in classifying the three varieties. A difference in dextrose utilization had been described by McAlpine, and a variation in the amount and rate of H₂S produced was described by Huddleston.

The variety that most commonly causes undulant fever in the United States is undetermined. Evans states: "It is well recognized that pathogenic bacteria lose their virulence when grown on artificial media and this loss in virulence has been commonly noted in the organism of contagious abortion." Undulant fever probably occurs either sporadically or endemically in all sections of the United States.

PATHOLOGY.

Here we are dealing with a proteian disease. The mortality rate of this disease is apparently low (2-3 per cent). Few fatal cases have been observed and for this reason a special effort should be made to obtain a detailed post mortem study in all instances.

Animals, as well as other practical exposures to infective material, would indicate that skin contact is a very probable portal of entry.

The sources of the infection of undulant fever are apparently numerous, but as knowledge continues to accumulate, more and more evidence is presented which involves milk as a formidable vehicle of the disease. The organisms of undulant fever are destroyed by a comparatively low degree of heat.

The lesions found in domestic animals may be mentioned. In the cow, pathologic changes are found in the pregnant uterus

and mammary glands. In the uterus there is a localized or diffuse, acute, subacute or chronic inflammation involving the chorion and placenta and spreading to the endometrium. In the udder there are no gross changes, but on microscopic examination minute areas of subacute or chronic inflammation are commonly found. Reports are to be found that the organisms have frequently been recovered in the supermammary lymph glands. In goats the infection has been shown to be more generalized. The same may be said of hogs. Of interest in passing is the statement of a few authors relative to abortion in pregnant women. It seems they have been unable to find definite records of cases. Although Lawson & Sedgwick report that examination of serum of women who have aborted gave a larger number of positive complement-fixation tests with *Brucella abortus* than with syphilitic antigen. At best but a few positive infective cases have been definitely proved to have been the causes of abortion in women. In man mention is made of an enlarged liver, basal congestion of the lungs, and occasional involvement of the intestine and lymph glands. Hyperplasia of the spleen has been recognized. Myositis is suggested—weakness, sweating, fever, arthralgia, joint swelling is transient, due to toxin. Hemoglobinemia and erythrocythemia are of moderate intensity. Occasionally there is leukocytosis. The majority shows a leukopenia with a relative lymphocytosis more characteristic, according to Bierring.

BIBLIOGRAPHY.

1. Bruce, D.: Practitioner, 39:161, 1887.
2. Bang, B. J.: Comp. Path. & Thera., 10:125, 1897.
3. Evans, Alice C.: J. Infect. Dis., 22:580, 1918.
4. Meyer, K. F., and Shaw, E. B.: J. Infect. Dis., 27:173 (Sept.).
5. Hardy, A. V.: J. A. M. A., 892, 1929.
6. Hardy, A. V.: J. A. M. A., 892, 1929.

DISCUSSION.

Dr. Foster M. Johns (New Orleans): This paper of Dr. Hebert's is certainly quite timely. Like other diseases that have appeared on the medical horizon in the last fifteen or twenty years

very few of us recognized the presence of undulant fever in our midst until a very short while ago. I think it has only been a period of five or six years since Dr. Seemann found the first case, to my knowledge, in the city of New Orleans.

We had looked sporadically from time to time for cases. I found one or two cases in immigrants sick in the Charity Hospital of this city many years ago and had forgotten the occurrence until reminded by Dr. John B. Elliott quite recently.

Since recognizing that a low grade fever with practically normal blood count or a slight lymphocytosis and with profuse sweats may possibly be undulant fever, we now look for the disease by means of agglutination tests and, surprising as it may seem, we are finding quite a number of cases. I think in the past eight or ten months I have diagnosed five cases in the city of New Orleans. One or two of these patients have been rather prominent individuals who have been more or less sick and disabled for periods of six, eight or ten months. While the incidence of the disease has been very slight, its economic importance has thus been considerable.

With regard to the pathology and bacteriology of the disease, I think it will behoove most of us laboratory men to look a little bit closer into these features. I know personally I have carried for three years two cultures, one of *Brucella abortus* and one of *Brucella melitensis*, and I have only recently found that the agglutination absorption of one of the strains of *bactera* had considerably diminished. This occurrence is from lack of information as to the proper kind of culture media upon which to keep the organism growing over long periods of time.

In regard to the pathology, it is rather interesting that man does not have the same type of lesions that are present in cattle. The closest approach to the bovine type that I have noticed in much search for the literature was recently in a case I saw with Dr. Joseph Hume in which prostatitis and vesiculitis had undoubtedly been due to the *Brucella abortus*. The number of miscarriages in cows reported by the Department of Agriculture runs into the millions annually. Human abortions due to this infection have not been reported. Thus, from the animal standpoint, the disease is of a great deal more importance than it is with us, and yet how many cases of miscarriage in humans have been properly tested to establish the possibility of this disease playing a part in the incidence of these accidents.

At least the pathology of this disease when completely written will show a great many other occult manifestations in the human being of con-

ditions that are at present unexplainable and which may be attributed to just some such source as this.

Dr. J. M. Bodenheimer (Shreveport): If I understood the essayist correctly, he said that the infection was obtained through the skin. It seems to me there is infection from the skin and not from ingestion by milk. I have seen that time after time. I would like to know if the majority of men place any credence to that assertion.

Dr. W. H. Seemann (New Orleans): This is a very important subject and one that is growing increasingly important to my mind. I think we had a wonderful opportunity this morning when Dr. Underwood was here to get him to relate his experiences, but I suppose he felt a little timid being a guest from another state.

The thing that Dr. Hebert hasn't brought out particularly here, and Dr. Johns referred to, is not the death dealing quality of this disease, but the amount of invalidism and the uncertainty of its length, the debility it produces. In other words, from the standpoint of comfort it is extremely important both in the animal and in the human. I was hoping in this discussion something would be brought out in regard to this very prevalent disease.

In the state laboratory for a good many years blood coming in for typhoid is run with a strain of melitensis and abortus at the same time. That is how I happened to run across this case Dr. Johns referred to. The child had agglutination for typhoid made on several occasions and general blood examinations made, and I just suggested to the doctor that some blood be gotten and tried for undulant fever. To our surprise we got a very strong reaction.

There is a great deal in regard to this disease from the bacteriological aspect, as both Dr. Johns and Dr. Hebert referred to, which has to be worked out. I don't know whether Dr. Johns has had that experience, or Dr. Hebert. I have a blood now that we have run over three times continually increasing the dilution to endeavor to eliminate one of three organisms, but there is agglutination in all three strains.

Only by the help of the men who are out treating these cases can the laboratory be afforded material which will enable them to elaborate on the subject.

Dr. L. A. Hebert (Lake Charles): In answer to Dr. Bodenheimer's question, I will state that it is quite well recognized, I think, that many individuals who develop abortus fever or melitensis fever are individuals associated with cattle or the products of cattle. The skin contact is probably

referred to as having some injury and gaining entrance by such injury or lesions or break in the skin.

I wish to thank Dr. Johns and Seemann for their kind discussion and consideration.

THE MODERN METHODS OF TREATMENT OF MENINGO-MYELO-ENCEPHALITIS.*

(INFANTILE PARALYSIS)

ROBT. G. DOUGLAS, M. D.,

SHREVEPORT, LA.

Never before have I read a paper that is so completely naive in utter lack of originality. I wish to assure this audience that herein lies not a single observation or experience that has not been recorded by other workers. This paper, however, is the latest reflection of how an epidemic of infantile paralysis may be expeditiously handled in a small community without the advantage of having a medical school or a teaching staff. We are to thank the heads of our Boards of Health for having the medical profession already prepared for the appearance of poliomyelitis before it became active in our section. Dr. Sandidge very early received exact data from the Board of Health of Ottawa where the most recent epidemic occurred in America in 1929. They also furnished him with the complete data and information learned from the Baltimore epidemic of 1928.

A special meeting of our Parish Medical Society was called, the colored doctors being invited and attending, where the problems of the early diagnosis were presented and discussed freely. In addition, a list of symptoms occurring in the pre-paralytic stage, listed in the order of their frequency was sent out to every physician. In addition, attention was called to the laity through the press that every child who was only slightly sick should be seen by the

*Read before the Louisiana State Medical Society, New Orleans, April 14-15, 1931.

family physician at once. The number of new cases that appeared was reported each week in the press. It was rumored at one time, as often happens in epidemics, that the City and Parish Boards of Health were not being truthful as to the number of cases being published, so a list of the addresses of all patients who had or who had recently recovered was printed in the papers and the public was requested to forward information of any case omitted from the published record. The public was advised to keep the children away from crowds. It was a striking fact for me to note that the Sunday School and Church attendance was stopped first and most completely. Summer school continued in its regular session and no cases were reported among the pupils attending it, although all ages were represented.

The panic of the people was very great and was harder to control. It was pointed out to the public that the greatest number of cases of poliomyelitis that we could expect to have if every susceptible person took it would be only 186 out of our total population of 120,000; that only one out of 100 who came in direct contact with a patient ill with polio develops the disease; that the rural and mountain districts show a greater incidence than the cities; that the epidemic was becoming widespread over the nation and no promise of immunity could be made for any district; that the epidemic was mild and not of the fulminating variety; that there was plenty of time for diagnosis and that the serum was a cure. Having dealt fairly and openly with the laity, at the same time educating them, we received their wholesome cooperation with no reflecting shadow on the profession. This effect was salutary as I have never before been so impressed by the feeling of protection the public has towards its medical men. Often they scoff at our knowledge and motives, and the cults grow and flourish, but when crises and emergencies arise, they lean on us.

SYMPTOMS.

In order to discuss modern methods of treatment, diagnosis must first be presented. The syndrome of the pre-paralytic stage can be recognized according to the age groups, the older the child, the more readily one can be lead to suspect the disease. The diagnosis is usually made correctly before seeking confirmation by the spinal fluid. Of course, in time of epidemic, recognition is easier, but since we have every year an occasional sporadic case, we should never examine a sick child without at least attempting to elicit the spine sign. It will also keep us on the alert to recognize encephalitis, meningitis and other nerve pathology earlier. The spine sign is often elicited in tonsillitis, pneumonia, and pyelitis, but these can be excluded easily enough by clinical evidence. The child with poliomyelitis is more alert and cooperative than one suffering from syphilitis, tubercular or cerebral-spinal meningitis.

The following are the universally recognized signs of poliomyelitis in the pre-paralytic stage:

1. Fever is a constant symptom, rarely ranging above 101 degrees F.
2. Headache is frequently complained of by older children and is sometimes extraordinarily severe.
3. The spine sign is most constant. To attempt to pick up any child's head while recumbent and brutally thrust it forward on the chest will be resisted voluntarily, but the sign must be elicited by the child sitting up with the knees drawn up and attempting to kiss the top of the knee. A quarter laid thereon will stimulate him to effort. If the sign is present he will begin in good faith, but pain in the spine will cause him not to flex it, and no urging or bribing will persuade him to again attempt it. A modification, called the "Amoss' tripod sign," is useful in older children and adults. The patient is seated on a table, leaning forward until his hands are on the edge of the table, bearing part of the body's weight.

On being asked to put the hands on the back of the neck or to fold them, he rapidly returns them to the tripod position to ease the pain in the back.

4. Rigidity of the neck, and distinct resistance to anterior flexion. Rarely is there retraction and never total limitation. The patient can tilt the head on the neck and does not bind the lower part of the neck. Lateral motion of the head can be made with ease.

5. Drowsiness when the child is left alone, and irritability when aroused; never comatose, but alert when disturbed, differing entirely from one with meningitis.

6. Vomiting is not a presenting symptom, but will occur once or twice on the first day.

7. Constipation is the rule.

8. Retention of urine is frequent.

We now turn specifically to the epidemic of poliomyelitis which occurred in Caddo Parish from May to November, 1930. Caddo Parish, inclusive of Shreveport, has a population of 120,000, which had an expectancy of 186 cases, according to the percentage brought out in epidemics in other cities. Caddo Parish developed 70 cases. Furthermore, there were no fulminating cases, nor the early morning paralysis of children, nor did there exist the so-called "dromedary" type where the illness developed as a fever of a few days duration, followed by a short remission, with fever again, and then paralysis, save in once case, an adult female of 22 years. It is possible that the use of the serum in the pre-paralytic stage caused our epidemic to be called a mild one. In every case where the serum was given in the pre-paralytic stage no paralysis ensued.

The following statistics are based on the study of the 50 cases reported to the City and Parish Boards of Health, the additional 20 cases being not reported, but

recognized only after recovery when some muscle weakness developed.

INCIDENCE.

I. Seasonal: The cases were reported in the following months: April, 1; May, 6; June, 16; July, 18; August, 5; September, 3; October, 0, and November, 1. The first case occurred on April 29, and no new cases were reported until almost a month later—May 21. The disease occurred during a season of unprecedented drouth. For three months no rain fell and the temperature continued high during the entire period. The cases seemed to occur in cycles—as there were periods of five or six days when no cases were observed, but these periods would be followed by a sudden outburst of new cases within a few days. The week of our maximum temperature, when the thermometer registered over 100 degrees every day, there was practically a complete cessation of the disease. In other reported epidemics of poliomyelitis the peak of the epidemic is usually reached in September, but, by a strange paradox, our epidemic did not behave like others, and with the appearance of cooler weather our cases showed a marked decrease. It is hard to explain the decrease of cases as the season progressed, except that the unknown cause of the condition had become attenuated and could no longer produce the disease—a condition which is observed often in measles, a disease of much higher susceptibility.

II. Age Incidence: The ages of the patients reported ranged from 10 months to 22 years. There were five cases in children under 2 years of age; eight in those 2 years old; seven in 3-year-old group; five in the 4-year-old group; five in the 5-year-old group; four in the 6-year-old children; none in those 7 years old; eight among the 8 years old; two among 9-year-old children; two in the 10-year group; none in the 11, one in the 12, and two in adults of 22 years. The greatest number of cases occurred in children from 2 to 6 years of age.

III. Sex Incidence: The number between the male and females was practically the same.

IV. Social Strata: The disease was not selective in regard to station of life—wealth or poverty. Cases were as common in the so-called wealthy classes as among the poor.

V. Race: Among the reported cases 36 were among white children, and 14 among colored children. The colored race seemed slightly, but to no great extent more susceptible than the white.

VI. District: The disease was not selective in regard to location, although the rural district showed a greater number of cases than the city; a condition which has been observed in other epidemics of poliomyelitis—the more dense the population, the fewer the cases in proportion. In the city the cases were well scattered—there being no two cases in the same block, nor no two in the same family. However, in another part of North Louisiana two cases in the same family have been reported. In the rural district there were more cases occurring in children between 9 and 12 years than in the city.

INVOLVEMENT.

There was not a general involvement of the extremities as is seen in many epidemics. The lower extremities were most commonly affected, and only occasionally both extremities. A combination of upper and lower extremities was seen in only three cases. Only one death was reported from this parish, making an extremely low death rate of 1.4 per cent. The official statistics will seem higher than that, due to the fact that some fatal cases were brought to us for treatment from outside our parish. Only three cases of the bulbar type were found, two with facial paralysis and one involving the eye muscles. Paralysis of the bladder muscles was seen in 2 cases.

NON-PARALYTIC

It is difficult to evaluate the non-paralytic or abortive types, which are claimed to be very common. It is hard to say a case is non-paralytic in the abstract. There were no cases that could be so called in our series. These children had fever, a demonstrable rigidity of the neck and spine, though the spinal fluid cell count ran only from 1 to 7 cells.

Semi-abortive types are found in those children who have no symptoms on the second and third day, but the parents notice a faint limp when the child is walking. This abortive type is apparently confined wholly to the lower extremities as the upper can scarcely be tested.

SPINAL FLUID CELL COUNT.

According to Draper the cell count is in direct proportion to the severity of the illness, both as regards life and paralysis. Counts above 1000 are almost always fatal. No paralysis will occur in a case with a count below 20, although weakness of 6 weeks duration will manifest itself. This weakness improves very rapidly in the first few days, as if the spinal synapses are recovering from shock.

The highest cell count in our series was 1250. This case escaped with a gesture of right facial paresis.

In differential counts the polymorphonuclear leukocytes predominated 70 to 80 per cent, being rapidly replaced by lymphocytes. A spinal puncture was done only when clinical evidence warranted it and it was an affirmative rather than a diagnostic procedure.

SPECIFIC ANTIBODY SERUM.

The serum we used was obtained from the Shrine Hospital for Crippled Children located in Shreveport, through the courtesy of Dr. H. A. Durham, who is in charge. No convalescent serum was available. It was obtained from children of from 8 to 10 years of age. These serums were all pooled. Dr. Mathews, Pathologist of the Charity Hospital prepared it, Wassermann negative

and sterile, 25 cc. to the glass ampoule. One dose of serum was given in the gluteus maximus upon diagnosis. There was a subsidence of fever and symptoms in from 6 to 12 hours, with a well child within 24 hours. None of these patients had any anaphylaxis whatever.

NOTES ON THE CADDO EPIDEMIC.

1. Opisthotonus did not occur in any of our cases.

2. High temperature was seen in but 3 cases.

3. Convulsions occurred in but 3 cases, these being very small children.

4. There was no diarrhea as is often described, constipation being the rule.

5. Once paralysis developed, serum has no effect either as to aiding the paralysis or arresting its spread. We had 2 cases of the ascending type.

6. There was no hyperesthesia until appearance of paralysis.

7. There were no cases of the fulminating type.

8. There was but one presenting sore throat and that was in the one "dromedary" we had, making the significance of the throat doubtful.

COMMENT.

Moro in Europe has demonstrated that adults have an immunity to poliomyelitis, except the occasional immunological defective who develops symptoms. Through much titration of the sera of adults with the virus he has determined that city bred adults of over 15 years of age have the specific bodies to immunize a patient in the pre-paralytic stage. Only 50 per cent of the adults in the rural districts have this immunity.

H. J. Shaughnessy, P. H. Harmon, and F. B. Gordon, Chicago workers, find that 80 per cent of normal adults serum will neutralize the virus in 1:30 dilution, corresponding roughly to the maximum practicable therapeutic dose in human medicine.

If these workers are correct and can be verified clinically, the complication of acquiring the serum from only old poliomyelitis cases will be much easier and simpler.

DISCUSSION.

Dr. M. S. Picard (Shreveport, La.): Dr. Douglas is too generous in his statement that this paper was written in collaboration with him, as the largest part was written by him.

As soon as it became evident that we were dealing with an epidemic of infantile spinal paralysis rather than the sporadic cases we see annually, with the cooperation of our health officer, Dr. Sandidge, we decided to adopt the methods used in the Baltimore and Ottawa epidemics as they represented the most recent experiences in prophylaxis and treatment.

I recall with a great deal of vividness the first case in which we used immune serum. This case was seen by me in consultation with Dr. Douglas. A spinal cell count of 1250 was present, 20 c.c. of immune serum was given intramuscularly. To the eyes of the novice and the inexperienced, our results were marvelous only a gesture of a facial paralysis occurred. This case appeared more marvelous to us for according to Draper, the prognosis of the case in regard to paralysis and life is in indirect proportion to the number of cells found in the spinal fluid, high counts meaning death or paralysis.

Our experiences did not confirm this as paralysis occurred in cell counts of 50 as well as 500 to 1000. Our experiences confirmed the works of others that the first cells were polys, later becoming mixed, and finally the lymphocytes were markedly in excess or consisted entirely of lymphocytes. Long continued presence of polys were of bad prognostic value. My reason for saying that high or low cell count was of little significant value in that two deaths occurred in the ascending type with a cell count of less than 100. Three types of purely meningeal form were seen. These children showed a cell count between 3000 and 20,000, no organism were found in the spinal fluid. Post-mortems held on two showed a basal meningitis.

These children were taken violently ill with high temperatures and convulsions, death occurring in twenty-four hours. We were uncertain of the diagnosis of these cases until Dr. Martel of Homer, Louisiana, told us of three cases in the same family, two dying of high temperature and convulsions, the third developing a general paralysis.

I wish to emphasize two symptoms mentioned by Dr. Douglas that are the only ones of real value in the diagnosis of infantile paralysis in the preparalytic stage, rigidity of neck and spine. There is an anterior rigidity of the neck. If you lift up the neck you meet the resistance. There is no fixed rigidity of the neck as in meningitis. The child will turn its head from side to side following voices or footsteps without effort.

There is a peculiar rigidity of the spine, if you lift up the head the trunk seems to run away from the body.

All cases where the immune serum was used after paralysis had set in were futile.

We had no experience with the work of Shaughnessy and his associates, Aycock and others. Their works came out after our epidemic was fully developed and was abstracted after our epidemic had ceased, hence was of little value to us.

According to them only four out of seven immune serum were potent in contrast to 13 out of 15 or 87 per cent of normal blood, that is blood from the usual donors who have never suffered from the disease.

The nearest analogy to this is the use of convalescent serum in the prophylaxis of measles. This differs in this manner that the potent blood was from donors who have had measles even though years distant.

Clinically our work did not confirm the work of Shangnessy at all in regard to the potency of immune serum. We had no failures in those cases when the serum was used in the preparalytic stage. Our results in the use of the immune blood were so brilliant that I would hesitate a long time before using normal blood as a substitute.

It is a long distance removed from animal experimentation to human demonstration and results must be shown by its use in succeeding epidemics before I would dare to use it except as an emergency measure.

Strange as it may seem the apparently neglected and untreated cases showed a greater tendency to spontaneous recovery than those subjected to our more scientific treatment.

Dr. H. R. Marlatt (Homer, La.): The poliomyelitis in Claiborne Parish, about fifty miles East of Shreveport, reached its height about June 20. The first case we had in Claiborne Parish was the child of the Principal of one of the rural high schools. The baby was six years old, a boy. This was the last week in May. About a month

later cases were reported in about four points of the Parish.

Claiborne Parish is about 45 miles North and South and about 50 miles East and West with 33,500 people in it. You can get an idea of the territory. Shreveport is 50 miles, El Dorado fifty, Ruston forty and we have no hospital facilities. As these cases developed most times the doctor was called in after the patient had developed some paralysis. In very few cases was the doctor called in the early stages. The people were very much frightened.

Dr. Douglas said the idea of isolation probably was of no value. Maybe it was, but it seemed to be the only way in our rural section to impress the people they had something on their hands. We proceeded to scare everybody into their own homes, which they did. During the month of June there were eighteen new cases. In all, we had forty-six cases in Claiborne Parish. Six white people had poliomyelitis. There are now eleven cases in Claiborne Parish that have considerable paralysis. There are fifteen more that have some. The rest of them are practically well, with just some slight impediment when they walk.

None of these people received any treatment. These people had no money to call a doctor. They were in the center of this drought-stricken area toward Lincoln Parish. All I could do was run around and find where these people were. I told them to go to bed and stay there. "Don't get up. Stay quiet. Take your usual cathartics, but for heavens' sake don't be trying to move." That was the advice.

In the north part of the Parish, which is toward Magnolia, there is a very congenial chiropractor. He promptly put in the local papers, "A sure cure for poliomyelitis." He wanted to manipulate everybody. I got in a fight with him once but that didn't do any good. He proceeded to rub every person that he could get hold of in Northern Claiborne Parish, and the people who are paralyzed seriously are the ones living in the section where that man and his assistant gave treatments. The people in the South and East section toward Ruston, toward Lincoln Parish, have made remarkable recoveries.

This school principal's child was taken sick and the doctor was called, and I believe now in under treatment in the Shrine hospital. Two cases occurred in Haynesville, but none in Homer. The rest of them were in the most isolated parts of the Parish.

The most interesting part of these white cases was their relation to the first case that came down.

They had a party at that place to celebrate a birthday. I don't know what connection these relatives had to this first case that developed among the colored people who had it. The colored people who had it were invariably centered around the people who visited this home. We locked the town up right.

I don't believe it did any good, but psychologically, it certainly frightened them and they stayed at home. By the end of July it was practically stopped.

In all, as I say, we had seven deaths out of forty-six cases. Fifteen have some paralysis, eleven are badly paralyzed, and the rest are practically well.

Dr. P. A. McIlhenny (New Orleans): I was very much impressed by the doctor when he stated that he advised all of these patients and parents to keep the patients quiet.

The terrible deformities resulting from poliomyelitis illustrate beyond a shadow of a doubt the faults that occurred in the treatment of the paralytic and post-paralytic stage.

Any child or individual suspected of having poliomyelitis should be kept absolutely quiet. Do not move them and do not attempt to entertain them. Keep them absolutely as quiet as possible and establish as nearly a perfect physiological rest as is compatible with the treatment of the acute condition.

After the stage of paralysis has occurred the affected limb should be supported in a median position by a simple, light splint which can be easily made of any ordinary pasteboard box, and the child allowed to remain in the most comfortable position possible with the avoidance of any attempt to simulate contractions of the affected group or even to increase nutrition of the part by massage. By supporting the part in the median position we prevent deformity, and that is the main point of my discussion, the prevention of deformity.

There are three types of what I might term paralysis. The most serious type is the one in which the cell has been completely destroyed and no power can ever regenerate action in that muscle; the second, in which there has been partial damage and there will result a weakening of the muscle; the third, in which there has been a transient inflammatory condition which will subside and you will have complete regeneration of nerve function.

During the second stage in which there is muscle soreness which may last for six weeks, the part should be left absolutely alone except for support in the median position.

Years ago we thought our duty was to attempt stimulation in the affected group and ordered massage and electricity with the result that the poor little individual cried with anguish at the second or third visit of the attendant who gave those treatments. It is now our practice to avoid anything which will cause discomfort to the individual, and prevent deformity by supporting the part in a median position and so prevent contraction.

If restoration of function is going to occur, you may expect some improvement up to two years after the initial attack. During that time it should be the function of the practitioner or the specialist to attempt to prevent deformity by supporting the part in the median position. After the muscular soreness has subsided you may then begin gentle massage and advocate active motions without weight bearing until some reestablishment of function in the partially affected group of muscles has occurred. No operation should be attempted to reestablish function in the affected group of muscles until two years after the initial attack.

I had a most decided demonstration of the too early operation. A case which I had seen about six months after initial attack, with a paralytic club foot due to an atrophic or partial paralysis of the abductor group of muscles, was operated on in another city, contrary to my advice, by a muscle transplantation being done to correct the apparent paralytic club foot. Two years later I had to do a fixation operation at the ankle to overcome a marked flat foot deformity which had been produced by the transference of the abductor group of muscles to the abductor side, and then later a restoration of function in the apparently or transiently paralyzed abductor group.

So, I beg of you, support the part during the paralytic stage or the muscle-soreness stage and so prevent deformity and possibly obviate the necessity of operation for the correction of deformity later on.

Dr. R. G. Douglas (closing): I am very glad that Dr. Marlatt arose to discuss this paper. He was a giant in that epidemic he had over there. He had to do all the work by himself, and he grabbed up the 33,000 people and shook them like a dog would a rat. He made them behave. It was the only thing he could do. He was not able to educate his people as well as we were, as they were thinly distributed over a wide area. They didn't have the advantage of the daily press, and he had to do all of the educating by himself. With us, we had 140 doctors who talked about the epidemic almost every day, both over the telephone and by professional calls.

I think it is a well recognized fact that if you begin to treat these cases too early, after paralysis, as Dr. McIlhenny so well brought out, they don't heal nearly so rapidly. That is another quarrel we have with the cultists, the osteopaths and the chiropractors. They distribute their propaganda, "We can help these people," and they have the big alibi, "The doctor can't do you any good, while if I treat you it may do some good," but as a matter of fact each patient they manipulate is made worse. I want to thank the two doctors who discussed the paper, and I want to thank the audience for their kindly reception. I thank you.

SINUS DISEASES AND THEIR RELATION TO EYE DISTURBANCES.*

MEDICAL TREATMENT OF SINUS DISEASES COMPLICATED BY EYE DISTURBANCES.

J. C. ADAMS, M. D.,

GREENWOOD, MISS.

Medical treatment of inflammatory infections of the accessory cavities of the nose, namely the maxillary antra, the frontal sinuses, the ethmoid cells and the sphenoid sinuses, may implicate in their diseases the orbit and the optic nerve. This most frequently occurs in disease beginning in the ethmoid cells for the latter are separated from the orbit only by the thin lamina papyracea which frequently has small openings in it. The most posterior ethmoid cells frequently extend into the small wing of the sphenoid and then come in close relation with the optic nerve because they now border on the optic canal, and may extend so far beyond the median line that they actually adjoin the optic canal of the opposite side.

It is now very generally accepted both by ophthalmologists and rhinologists, as a clinical fact, that diseases of the accessory sinuses frequently affect the ocular appar-

atus secondarily. So certain is the fact at present that the well-informed rhinologists seek for early symptoms of inflammatory disease in the eyes of all sinus patients, while the ophthalmologists are equally solicitous in several types of orbital and sinus disease to ascertain if possible, if some focus of infection may not be present in the neighboring para-nasal sinuses. For a long time, apparently the visual apparatus was looked upon by the oculist as a field which was pretty thoroughly isolated, and one in which the diseases which affected it arose largely within its own very limited environment. This idea, of course, has been discarded.

Inflammatory infections of the above named cavities are generally the result of an inflammation of the nasal mucous membrane. This may be either an acute or chronic inflammatory process.

Very little progress has been accomplished in the treatment of acute rhinitis. So far there is no specific, since it is an acute inflammatory affection. The general principles of treatment for inflamed tissues are indicated, and the treatment varies according to the stages of the disease.

In the first stage, rest in bed, good elimination through the skin, kidneys and bowels, and some soothing application to the affected parts constitute the best means of treatment. In the mild cases that are due largely to disturbance of nasal circulation, and not to bacterial infection, this method of treatment often aborts the cold. Since a common cold is usually regarded as a trivial disease, and one which gets well in most cases without any special care, it is not easy to enforce a period of rest in bed. In the beginning of this ailment, a saline purge is helpful, especially in plethoric individuals. Castor oil is very good for children, but a physic of some kind is essential for all. Large quantities of water, taken hot, gives satisfactory elimination. Lemon or orange juice

* The following three papers were read before the Section on Eye, Ear, Nose and Throat at the Sixty-fourth Annual Session of the Mississippi State Medical Association, Jackson, May 13, 1931.

should be added to encourage drinking of large amounts. If the patient is in bed and warmly covered, large hot drinks produce free perspiration and free diuresis. Dovers powders given according to the age of the patient and sodium bicarbonate given in ten grain doses three times a day, will be highly beneficial.

During the second stage the patient is made more comfortable by giving small doses of atropine. If nasal blockage be severe, relief is often obtained by local applications of a weak cocain solution, two per cent followed with silver of nitrate, one to two per cent and an ephedrine solution. Cocain solutions, however, should never be given to the patient to use, since their too frequent employment produces a reaction which increases nasal blockage. Provision for adequate drainage of the sinuses at least once each day is an important measure in the prevention of sinus disease.

In the third stage, if the secretion is abundant and thick, and difficult to remove by gentle blowing of the nose, suction is helpful, being carried out with especially constructed tubes, rather than the use of an olive tip that fits into the nostril. The suction should be used daily, inserting the tube under and around the turbinates, and all secretions removed. Shrinkage of the swollen nasal membranes previous to suction is necessary. After shrinkage by application of cocain and ephedrine solutions to the mucosa, and removal of mucus by suction, douching the nose with warm normal salt solution, is grateful to the patient, and a valuable remedy in the treatment of rhinitis.

Acute frontal sinus disease is best managed by treatment of the rhinitis, which accompanies it, and usually is the etiological factor. Restoration of normal drainage of the sinuses is very important, because the naso-frontal duct enters the nose under the anterior portion of the middle turbinate, and efforts towards opening the duct, and keeping it open, must be made.

After shrinking the engorged nasal mucosa, with a weak solution of cocain and ephedrine, a small pledget of cotton is moistened in the same solution and is inserted under the middle turbinate where it is allowed to remain from ten to fifteen minutes. Shrinkage of the nasal tissue in this way is usually sufficient to open the ostium. Of course the shrinkage is temporary, but sufficient to drain the sinus, especially if suction is used immediately. Silver nitrate solution, one to two per cent should be applied, followed with mild oily spray. This will usually give relief if seen early, except in the more severe cases. If the infection is violent, such as we have following epidemics of influenza, local medication is not sufficient. Especially is this true where the middle turbinated body is hypertrophied and will not shrink with medication. In some cases the middle turbinate is jammed closely against the naso-antral wall. If this be the case, after cocaineizing the parts, a flat bunt elevator should be inserted under the turbinate which may then be fractured and pried out into the nasal cavity, which uncovers the ostium and improves drainage.

Chronic suppurative frontal sinusitis does not usually respond to local and general treatment, and is essentially a surgical condition.

The treatment for acute ethmoiditis and sphenoiditis should be directed toward the elimination of the infection, as quickly as possible, and is essentially the same as for acute coryza. The nasal mucosa should be thoroughly shrunk and then the nasal cavities should be irrigated with a hot saline solution. Oftentimes a great deal may be accomplished by inserting a pledget of cotton soaked in a 25 per cent argyrol solution into the nose, and allowing it to remain there about twenty minutes. If there is much pain due to congestion of the nose, an analgesic, containing a small amount of atropine, should be given, which tends to dry up the membranes. It is seldom necessary to resort to any operative interference

during the acute stage, unless the infection is retained in the sphenoid sinus, resulting in an empyema. In such cases an opening must be made to establish free drainage. In the treatment of chronic inflammatory conditions of the ethmoid and sphenoid sinuses, especially in the hyperplastic cases, something may be done in the form of medical treatment, provided no systemic symptoms, or symptoms of pressure are present, such as beginning congestion of the optic disc. During the attacks of severe congestion where the patient seems to have a cold in the head, the nasal mucosa should be shrunk and a pledget of cotton placed in the region of the middle turbinate and allowed to remain about ten minutes, then removed and the nose irrigated with a suction douche apparatus. As a rule the washings will contain pus, and should be continued until free from pus. The area then should be treated with silver nitrate solution, one to two per cent and sprayed with a mild oil. This procedure should be resorted to each day until little or no pus returns. A culture may be taken from the secretion and a vaccine made which should be given every third day for ten doses.

Medical treatment of mild types of acute infections of the antrum of Highmore, is much the same as that for simple acute rhinitis. Early relief of the nasal cold which caused the sinus disease provides free drainage, and good drainage of the sinus usually insures speedy return to the normal of the inflamed and infiltrated mucous membrane. For cases in which the sinus is more violently infected, as when the affection is a complication of a severe head cold, which accompanies la grippe, or one of the exanthemata, measures directed to the disease in the antrum, in addition to nasal treatment will be necessary.

The first essential in the treatment of an acutely infected suppurating antrum is to keep the ostium maxillaire sufficiently open to provide ample drainage until resolution of the diseased structures is complete. To accomplish this it is necessary to shrink the nose thoroughly, using a weak solution of cocain and ephedrine, placing a small pledget of cotton moistened in the same solution under the anterior third of the middle turbinate, where it is allowed to remain fifteen minutes. The effect is temporarily beneficial in opening the nose and uncovering the ostium of the sinus. The effect of the ephedrine solution is more prolonged than that of adrenalin, and the ostium of the sinus remains open a correspondingly longer time. When the tissues of the nasal fossa are shrunken, the nose should be cleansed of all mucopurulent material. Douches of hot normal salt solution are valuable for this purpose. Suction and cleansing of both nose and antrum by negative pressure is of much value, and should be used each day. The most suitable home treatment consists in both general and local medication, a prescription being given for ephedrine solution, containing menthol and camphor, to be used every three or four hours. The douche of normal salt solution may be used at home twice daily and is advisable unless stoppage is sufficient to make it dangerous, except in the third period of acute rhinitis, when nasal secretion is abundant, and the mucous membrane less sensitive, the use of an alkaline spray in the nose is often harmful. When an alkaline spray is indicated, Dobell's solution is very good. When nasal cleansing is complete, equal parts of albolene, and chloratone inhalant, which are antiseptic and soothing are sprayed into the nose.

Inhalations of hot medicated steam, are often grateful and helpful. An efficient

solution is prepared by adding a teaspoonful of compound tincture of benzoin and ten grains of menthol to a pint of steaming water. Hot steam from this solution is inhaled for a period of five minutes, usually twice a day, the patient being instructed to remain in a warm room for at least twenty minutes after each inhalation.

When pain is severe, as it is following complete closure of the infected antrum, with retention of secretion, the administration of an analgesic is necessary.

Sometimes neither nasal treatment nor general medication will give much relief, or have any effect on the progress of the disease and relief of pain. In such cases the pent-up fluid in the antrum must be evacuated. This can very easily be done by simple irrigation of the antrum. Puncture of the maxillary sinus for the purpose of drainage is made through the aseous wall under the anterior third of the lower turbinate, this being the site of election, especially if it is probable that several irrigations of the sinus will be necessary. The wall usually is thin and the instrument penetrates without much pressure. After the antrum is perforated it should be irrigated with normal salt solution, having a temperature of 105°F. An ordinary rubber syringe or a gravity bag may be used to drive the fluid through the cannula. Repeated irrigations of the antrum, with local medication to the nasal cavity will be sufficient to relieve all clinical symptoms and apparently cure a great number of acute maxillary sinus diseases.

When chronicity is once well established, sprays, douches, irrigations or climate usually have little beneficial effect. The disease is then surgical and requires well directed surgical treatment.

THE SURGICAL TREATMENT OF SINUS DISEASES COMPLICATED BY EYE DISTURBANCES.

FERN CHAMPENOIS, M. D.,

HATTIESBURG, MISS.

The title of this paper is not my selection, which means that had the choice been left to me I most assuredly and emphatically would have chosen a subject more in keeping with my limited experience. But when my very good friend, Dr. Gaudet, had sufficient confidence in my ability to delude himself into believing that I could do his program justice there was nothing left for me to do other than make a valiant effort to justify this misplaced confidence.

This symposium of eye diseases in relation to sinus involvement is very interesting, rather complicated, and by no means easy as to positive diagnostic relationship and the surgical procedures necessary to render a cure. So it is, that if we who have this assignment can present a comprehensive picture of the subject as a whole, we will have justified our chairman and interested you gentlemen.

My contribution to this symposium is limited to the surgical means commonly used with the expectation of relieving the eye disturbances. So, assuming that my predecessor, Dr. Harper, has shown through the various diagnostic means the sinus or sinuses involved, I shall attempt in a brief way a description of the surgical interference necessary for the relief of these abnormal eye conditions. Of course, you gentlemen will not expect anything new, this being an old subject, but a review will refresh our memories and open up avenues for discussion.

It is my opinion that the most serious eye disturbance, retrobulbar neuritis, is due to an involvement of the sphenoid and the posterior ethmoid cells. Some maintain that the sphenoid is mostly at fault on account of its relationship to the optic

foramen. In any case, we find that both are usually involved in this post optic condition and it follows that the surgical attack must be directed toward them.

Whatever method is used, and there are many, complete ventilation and thorough drainage is imperative. And again, we must decide between the intra- and extra-nasal routes, giving preference of course to the extra-nasal route when the frontal also is extensively involved. Due to the fact that many of us who live in the smaller cities, are handicapped by lack of material, I believe it wise to operate through the nares, because this is the less radical operation, and we would have almost an equal chance for a good result. For fear some of you might truthfully accuse me of being surgically timid, I must boldly say that even in the hands of the best operators a 100 per cent surgical technic does not always mean a 100 per cent recovery.

I am sure it is unnecessary to remind you of the importance of the anatomical relations of these two surgically prominent sinuses, excepting to say that in dealing with the ethmoid cells we are in close relation to the internal wall of the orbit, only separated from it by a thin plate, the lamina papyracea which covers the middle and posterior cells, and that in attacking the anterior wall of the sphenoid we must be careful not to injure the roof which is in close relation to the meninges, optic chiasm and the optic foramen.

In describing the surgical technic I use in exenterating the ethmoid cells and opening the anterior wall of the sphenoid, I fear that none of you will recognize any specific operation as my method is the result of experience, accruing from the observation of many surgical procedures. However, it serves my purpose, but if you should not agree with me just tell me your method and if I like it I will add it to my armamentarium.

It is unnecessary to state that this operation through the nares is done under a local anesthesia, using a ten per cent solution of cocain with adrenalin. It is applied by means of pledgets of cotton inserted over and under the middle turbinate, followed by application of the solution on applicators in the region of all cells and to the anterior wall of the sphenoid. Complete anesthesia takes place in fifteen or twenty minutes.

The middle turbinate is completely removed with a Balanger swivel knife or scissors aided by the snare, after which, the cells are carefully and thoroughly broken down and curetted by means of a right angle knife and the curette. There is often bleeding at this time which necessitates control with packs and adrenalin. When the bleeding has discontinued, and if the labyrinth has been wholly exerated, the ostium of the sphenoid can be seen. This opening is inspected and if there is evidence of disease the opening is enlarged by breaking through with one of the many sphenoid instruments. This opening should be made as large as safety admits, including the floor, as nature tends toward closing the wound. Most operators advise against curettement of the sphenoid on account of its proximity laterally to the cavernous sinus and above to the optic nerve. Packing is to be avoided but if there seems to be a tendency to bleed, pack with iodoform gauze saturated in some bland oil. I believe the majority of these cases handled as described above do better than when operated extra-nasally, even though the frontal is also involved, unless we have to contend with that condition of extensive polypoid growth complicated by more or less disease of the mucosa and bone. Then of course the route of choice would be extra-nasal.

Some of the more important indications for the extra-nasal radical operation are as follows: When the roentgen-ray shows a general paranasal sinusitis; when there is continual headache in spite of treatment

and irrigation; when rhinoscopic examination shows nasal cavity full of pus and polypoid growths, and in fistula and threatened cerebral complications. But we must remember that in advising the external radical operation that the patient does not always get a perfect cure—and this holds good in any radical operation on the nose no matter who is the operator. I have seen many so operated upon who, though relieved of the eye complications, still have trouble with their sinuses. I am sure quite a few of you will bear me out in this statement.

Before attempting a brief description of the extra-nasal radical operation as performed by me on the cadaver and a very few trusting patients, I would like to call your attention to how few eye diseases are induced by serious sinus involvement. It would appear that there would be much more eye trouble from sinus infection. My experience has been that foci of infections in teeth and tonsils are as much to blame as the sinuses. However, this is foreign to the subject matter, but I wondered if you gentlemen had also found this to be true.

Candidly, I must admit that my experience in doing this operation, the external radical on the frontal, ethmoid and sphenoid, is quite limited; first, because I see very few cases wherein I think this necessary; second, this is a very serious and difficult procedure and only men of large experience should undertake its performance; and, last but not least, those patients who consult me have a decided opinion against this operation, either through fear of the bad cosmetic after effects or through having known cases unsuccessfully operated upon.

Presupposing we have concluded that the ethmoid and sphenoid sinuses are responsible for an eye complication, with the frontal associated, and that the inner route has been excluded or already tried, we would endeavor to perform a Killian opera-

tion or one of the various modifications thereof with the additional exenteration of the ethmoid labyrinth and the opening of the sphenoid.

I hardly believe it is necessary to give a detailed outline of the steps in this operation as I am sure all of you are familiar with the technique, and besides our chairman has kindly limited my time but should he feel so inclined I would appreciate very much if he would elaborate; you know he is probably doing more of this work than any other man in the state.

A general anesthetic is required. The incision is curved through the eyebrow down the side of the nose to a point about the middle of the ascending process of the maxilla, this carried through to the periosteum. Bleeding must be controlled as it is rather severe at this stage. The overlying soft parts are desected from the periosteum as far as is necessary to expose the field, care being taken to protect the eye. The periosteum above and below the orbital ridge is elevated, leaving intact that on the ridge as in removal of the outer wall and floor of the frontal the ridge should be left for support and cosmetic purposes.

In elevating and retracting the periosteum away from the floor of the frontal care should be taken not to injure the pulley of the superior oblique muscle, but it has been shown that should it be damaged there would be no permanent injury. After the floor and the outer wall of the frontal have been removed and the diseased mucosa curetted, the ethmoid cells are opened in the region of the superior portion of the lachrymal bone and completely exenterated back to the sphenoid which is now opened as completely as is deemed necessary. The nose is packed with iodoform gauze and the external wound is closed. If no untoward symptoms arise the pack is removed about the third day, and these proceedings being thorough, the results are usually very good. I sincerely trust that

this brief resume will be an incentive for a full discussion, bringing out the various steps more in detail.

In reading this paper I have not touched upon the surgery of the maxillary antrum because, seldom if ever, is it directly responsible for any of the various eye disturbances. At least this is true in my experience, but since some authorities claim that a diseased antrum causes certain disturbances it might be well that I describe briefly my method of attack. When I first began this work twenty odd years ago the Caldwell-Luc operation was favored for the relief of the chronic antrum. I did my share of these and still do when the antrum shows evidence of polypoid degeneration, but I have found that the majority of chronic antrums can be cured by a less radical operation and this means the making of a large intranasal antral opening that refuses to close. Nothing is lost if later the antrum has to be opened above the alveolar process for the purpose of curettment.

It seems rather unnecessary to offer a description of making an antral opening as it is rather simple, but would like to impress you with the fact that many failures are due to the opening closing, so by all means be sure that it is sufficiently large that this will not occur.

In *conclusion* will say that surgery on the sinuses when ventilated and drained thoroughly is usually very satisfactory, but on the other hand a one hundred per cent technique does not always mean a one hundred per cent cure. On the contrary many patients complain of certain disturbing after effects, traceable to a resultant unnatural anatomical deficiency which interferes with the normal physiological function of the nose.

EYE SYMPTOMS AND CHANGES RESULTING FROM SINUS DISEASE AND TREAT- MENT OF SAME.

C. C. BUCHANAN, M. D.,

HATTIESBURG, MISS.

The subject assigned me for discussion on this occasion is indeed an important one. It is of vital importance. First, because it deals with the most important and necessary of the special senses. Second, because I believe the causative factor when due to sinus disease is too often overlooked. Third, because when due to sinus disease and the cause is discovered early, many eyes may be saved which otherwise would be lost.

In order to understand better why eye changes and symptoms may result from sinus disease, it is necessary to review briefly the anatomy of the orbit and its contents. A portion of seven bones enter into the formation of the orbit. Three of these bones form a part of both orbits. A part of the roof of the orbit forms the floor of the frontal sinus. The floor of the orbit is the roof of the maxillary sinus. Its medial wall is the lateral wall of the ethmoid and sphenoid. The frontal and maxillary sinuses and anterior ethmoid cells are in relation to the anterior two-thirds of the orbits. The posterior ethmoid cells and sphenoid sinuses are in relation to the posterior one-third.

The posterior third of the orbit has three major openings. First, the optic canal which is at the apex of the orbit and transmits the optic nerve and the ophthalmic artery with the sympathetic plexus upon it. Second, the superior orbital fissure which lies between the wings of the sphenoid bone and transmits all the nerves that enter the orbit except the optic and infraorbital. Third, the inferior orbital fissure which lies between the greater wing of the sphenoid and palatal bones. Passing through this fissure is the maxillary nerve,

infraorbital artery and inferior ophthalmic vein.

The orbital periosteum is loosely attached to the bone and for this reason is easily separated from it by effusions, exudates and extravasations which may arise in the neighboring structures. The fascia bulbi of Tenon's capsule is a smooth, thick resistant membrane which surrounds the globe or eyeball proper and acts as a barrier against the migration of infections from the orbit to the eye ball and likewise from the eye ball to the orbit.

Eye symptoms and changes resulting secondarily to sinus infection are caused by: First, a direct extension of the inflammation. Second, by pressure which is the result of inflammation. Third, by toxemia.

The infection may spread through a congenital dehescence; second, may result from rupture of the sinus wall; third, may be carried by the naso-orbital emissary veins.

Perhaps one of the most common and serious conditions occurring secondary to sinus infection is orbital periostitis. This may result from a migrating infection originating in any of the sinuses; however, I am sure the ethmoid cells are the most common source. The first sign is redness of the upper lid. This is soon followed by edema of the lid and chemosis of the conjunctiva. If the subperiosteal effusion is very great, the eye ball may be displaced in any direction or it may be immovable. There is tenderness on pressure of the orbital contents and the patient usually complains of deep-seated eye pain. If much pus is formed it may travel backward or forward. If it burrows forward it may localize above the upper lid at the upper outer angle or upper inner angle of the orbit. If it burrows backward the results are more serious and often times irreparable damage is done to the optic nerve.

The diagnosis of this condition is usually not a difficult or perplexing problem. In order to state definitely that it is secondary to sinus infection, we must first find the offending sinus.

The treatment of a condition like this must first be directed at the cause. If due to sinus, it must be drained. The local condition must also receive attention. Moist heat is not only indicated because it hastens resolution but it is also often gratifying to the patient. Sedatives are likewise necessary for the relief of pain which is often excruciating. When localization has taken place it must be incised and in this connection it must be remembered that the incision should extend through the periosteum, and usually it is necessary to insert a drain. If the edema and chemosis are such that the lids can not be closed, the cornea must be protected and this is best accomplished by the application of sterile petrolatum.

The second condition for consideration is orbital cellulitis. The anatomical location of this condition is external to the orbital periosteum and affects the connective tissue, fat and the structure between the periosteum and Tenon's capsule. It may be secondary to an orbital periorbitis where rupture of the periosteum has occurred or may result from infection carried by the naso-orbital emissary veins which have become thrombotic in their course. This condition is a very active infiltrative process. It is accompanied by considerable pain which varies in intensity, and simultaneously, constitutional symptoms may be marked. The eye lids become edematous early and the conjunctiva is chemotic. The globe may be displaced and this may be in any direction. The pupil is often dilated. Diplopia may be present. The optic nerve is inflamed and the ophthalmoscope may reveal an optic neuritis. If possible to investigate the visual fields, they will be found distorted, and vision is markedly diminished.

The diagnosis of orbital cellulitis is not difficult usually and is made from the following signs and symptoms: Lid edema, proptosis, limited or loss of ocular rotation, pain to backward pressure of the globe, usually unilateral, early impairment of vision and disturbances of visual fields. It must be distinguished from cavernous sinus thrombosis, pulsating exophthalmus, serous tenonitis, panophthalmitis, orbital emphysema and orbital tumor. These conditions usually are of a rather passive character and not actively inflammatory.

The treatment of this condition is similar to that of orbital periostitis. First, find the cause and if possible remove it. Second, such measures as will hasten localization, drainage and relief of pain.

The third condition I will discuss may result from either of the two just described or may have its cause focus of infection elsewhere. Tenonitis may be described as a serious inflammation characterized by transient recurring fluctuating edema of the bulbar conjunctiva. The eyes are affected alternately; however, they may be affected simultaneously. The eyes may be fixed and movement of the eyes painful. The lower half of the bulbar conjunctiva may protrude and conceal the lower lid. Where it does, the exposed membrane is dusky, smooth and tense. Vision is not effected in uncomplicated cases. The fundi are usually normal; however, where the inflammation extends far back and implicates the nerve sheaths, the retinal veins are engorged, the arteries are contracted and stringy and optic neuritis or even papilledema may be present. In this condition, an exudation occurs in Tenon's space. This fluid is albuminous and fibrinous in character and does not lead to suppuration. Corneal ulceration and iritis may complicate cases of prolonged duration.

The diagnosis is made from fixation of the eye ball, alternating proptosis, and extruding edema of the bulbar conjunctiva.

Treatment of this condition is local and symptomatic. First, the cause must be removed if possible and such measures adopted as will allay the inflammation and relieve pain.

The optic nerve and its affections are extremely interesting to those of us who practice and have a preference for ophthalmology. A brief review of the anatomy of the optic nerve is necessary in order to understand why certain changes take place when the nerve is inflamed or its function interfered with from pressure.

The optic nerve fibers are gathered together into about eight hundred bundles, which are supported by neuroglial fibers. Connective tissue forms septa between these bundles and unites them into a trunk. In structure, the optic nerve resembles a column of the spinal cord, or a brain tract. It carries sensations of light, visual images, and impulses for pupillo-motor activity. The optic nerve is covered by three membranes exactly like the covering of the brain. The dural or external covering is loosely attached. The pial is the internal and is firmly attached to the nerve fibers. Between these two is the arachnoid. This membrane divides the space between the dural and pial membranes into what is called the subdural and arachnoidal intervaginal spaces. Lymph spaces are found between the bundle of fibers in the nerve. The central artery of the retina pierces the sheath of the nerve on its inferior surface, crosses the intervaginal space, and penetrates the substance of the nerve to the axis. This it follows forward to the foramen opticum or physiological cup. The central vein follows the course of the artery but leaves the nerve somewhat anterior to it. Both pierce the sheath of the nerve from eight to fifteen millimeters behind the globe. These vessels occupy perivascular sheaths within the nerve.

The optic nerve is divided into four parts. Two of these are of interest to us

in this paper. First, the optical portion or disk which can be seen with the ophthalmoscope, and second, the retrobulbar or orbital portion. The disk or visible portion is prominent in the fundus because of its definite margins, its lighter color, and the convergence of the retinal vessels upon it. The temporal quadrant of the disk is distinctly paler since it is less freely supplied with capillaries. This section is occupied by the papillomacular bundle or the fibers from the macular region. Diseases affecting the disk or optical part of the optic nerve can be diagnosed from observation with the ophthalmoscope; however, those affecting the retrobulbar part depend on changes in the visual fields and the acuteness of vision.

According to Roemer, Foster, Ramsey, Rutherford and others, orbital disease is the most common cause of optic neuritis, and they also claim that vision may be irreparably lost before the descending neuritis has become visible on the papilla. Skillern says that one of the most notable early signs of posterior sinus disease is an enlargement of the blind spot. He thinks this sign almost pathognomonic.

Optic nerve disturbances may become manifest: First, as a papillitis or intraocular optic neuritis, and, second, as retrobulbar or orbital optic neuritis.

Three types of intraocular neuritis are recognized: First, choked disk. This condition is suggestive of compression causing edema and engorgement without inflammation. The ophthalmoscopic picture is one of great swelling and protrusion of the disk, usually, the disk protrudes more than two diopters above the plane of the retina; marked tortuosity and distortion of the retinal veins; hemorrhages upon and near the edematous disk; arteries contracted.

Second, descending neuritis in which the symptoms indicate inflammation and are similar to yet considerably less marked than the condition just described; how-

ever, there are more changes in the retina surrounding the disk.

Third, neuroretinitis in which the signs are the same as the two conditions just described, and in addition there is evidence that the retina is extensively involved. This is evidenced by hemorrhages along the retinal vessels and spots of exudate and degeneration.

Treatment: First, proper treatment of the cause, medical and surgical. Second, treatment of the eye which consists in rest and shading from light.

Orbital neuritis may be acute or chronic. When acute it is called retrobulbar neuritis. The symptoms are first headache and failing vision. The globe may be protosed from swelling and inflammation of the orbital contents in which case attempts to press the globe back is attended with pain. The eye grounds are usually negative. The failing vision is usually rapid. Marked changes take place in the visual fields. The peripheral field is usually contracted. Some times only the macular and perimacular areas are affected with resulting central and peri-central scotomata. Perception for red and green is lost before that for blue and white.

The chronic form of orbital neuritis will not be discussed here for it does not result from sinus and orbital infections, but, on the other hand, is due to toxemia, usually chemical.

The treatment of this acute condition depends on the cause which must be removed promptly. Otherwise, permanent damage will certainly result. No local treatment to the eye is indicated with the exception of rest and protection.

CONCLUSIONS.

First: Eye complications of sinus disease are more common than we suspect.

Second: Usually unilateral and for this reason often overlooked until irreparable damage has been done.

Third: The eyes should not only be examined but closely watched in all sinus infections.

Fourth: All eyes showing diminished vision should be examined for fundus changes and disturbances in the visual fields and sinus disease suspected as the cause.

JOINT DISCUSSION OF PAPERS BY DRs. ADAMS,
CHAMPENOIS AND BUCHANAN.

Dr. E. L. Wilkins (Clarksdale): There are many eye cases without any sinus disturbances. Nasal disorders cause other things. There are very few eye disorders from sinus conditions; in fact, I wonder if sinus infections cause eye disorders, and vice versa.

A doctor in my home town has developed some very bad cases. I wonder if the operation is what gives us the benefit, or does the operation act as a counter treatment? There is much to be desired in therapeutics, but nothing from surgical treatment. Early treatment is most effective. If we were little inclined to operate, the people would stay away less.

Dr. Robin Harris (Jackson): In my examination for sinus disease after anterior and posterior rhinoscopy I transilluminate, make one or more roentgenograms, and take the vision. This is a routine I always follow. If the vision is below normal, I try to find the reason why. However, my experience with eye disturbances in sinus disease is limited largely to external diseases and conditions. The first case that I remember was a lady eight and one half months pregnant, left side of nose full of pus and a marked swelling of the mucosa. The left eye was swollen closed. Forty-eight hours of temporizing caused no improvement. The patient was in marked pain and growing worse. I did an external frontal and ethmoid drainage under local anesthesia. This was my first experience with local anesthesia in external surgery. The antrum was opened intranasally. In twenty-four hours the swelling was practically gone from the eye and the patient began to improve and was delivered at term three weeks later by her family physician.

Another was a child four years of age. Following a severe acute cold the left eye was swollen tight. There was marked redness, pain and high fever. I saw this child late in the afternoon in St. Joseph's hospital. I did not hope for relief, but prescribed hot saline nasal irrigations (40 minims of adrenalin to two quarts of solution) every three hours. I scheduled a frontal and ethmoid drainage operation for eight o'clock the following morning.

At 7:30 the following morning when I called to see the little fellow, the swelling was practically gone, the nose was fairly well opened and the drainage sufficient.

Dr. James H. Lipsey (Memphis): These papers have been a source of inspiration to me. I took some notes and thought I would say a few words, but I found that they had already covered what I had to say, and taught me a good deal beside.

Dr. E. H. Cary (Dallas): The first thing we have to do, is to get clearly in our minds that inflammation of the membranes of the sinuses due to nasal pressure and nasal blockages, without pus in the sinuses, gives the type of case in which we have eye inflammations. The great trouble with the rhinologist and ophthalmologist is that they are looking for pus in the sinuses, and when you have this condition, there are only a few eye conditions which are likely to be seen; among them, of course, is optic neuritis and optic nerve changes.

Many types of ulcers of the cornea with or without pannus, sometimes so complicated with folliculosis that the case presents every evidence of trachoma, are more or less associated with nasal conditions, and with changes in the sinuses which can be demonstrated with proper roentgen-ray methods.

Dr. Buffington's paper read at Louisville, on "Nutritional Disturbances in the Eye" was an excellent one, and I am quite sure that the nutritional balance can be corrected in many cases such as he describes with a real advantage. On the other hand, I feel pretty sure that we see many eye conditions that might be classified as a disturbed metabolism of the local part which yield very promptly to treatment of nasal conditions, which seem to relieve the metabolic disturbances of the local area, such as an eye which is inflamed.

I would say to you, that in nearly all of these cases, the nasal pathology is the result of the sinuses being primarily blocked, due to malformations and repeated inflammations.

The roentgen-ray is of great value when used in different ways to bring out the points that can be demonstrated. The use of neosilvol jelly or lipiodol is of very great aid.

Dr. W. L. Howard (Memphis): This is a most valuable subject and I feel that I would be neglecting my duty if I did not discuss these papers. I met Dr. Cary in New York City in 1901. He was there studying eye diseases. In listening to the symposium of papers and the discussions I have heard I think the most important part was omitted and that is diet. Vitamin diet is very

important in treating sinus conditions as vitamin D is nearly always lacking. I have made it a rule, in all cases, to give cod liver oil, especially in children where they have a sinusitis, whether it has any relation to eye disturbances or not. If you do not get results from diet and simple drainage you will then have reason to resort to something more radical. I realize that we have here with us today men who are ultra-conservative also some men ultra-radical. If you have a para-sinusitis condition, with pus and with eye complications, I do not think that any thing short of an operation will help. I hate to say this but I have seen incomplete operations by the late Dr. Lynch method which were very unsatisfactory. I also want to state that a complete Lynch operation (frontal) almost always will be a success. The trouble is that when you do not get results the operation is incomplete and as stated a complete operation will always give favorable results.

Dr. James B. Stanford (Memphis): When serious conditions arise in the eyes, secondary to sinus disease, it is too late for medical treatment. Those cases should be drained.

Dr. E. H. Jones (Vicksburg): I am very sorry that Dr. Cary did not mention the work done on retro-bulbar neuritis by Dr. Leon White. Any one interested in this subject would certainly do well to read his reports. It is my impression that he concluded that more cases of retro-bulbar neuritis were due to apical abscesses than to sinus disease. Almost any focus of infection can cause this condition. Not long ago I had a case which I thought due to an ethmoiditis. I did a radical ethmo-sphenoidotomy and a few weeks later she had a flare-up. On examination I found an acute purulent maxillary sinusitis and performed a simple antrumotomy. She cleared up rapidly but a few months later had another attack. Her teeth were all sound, but as her tonsils were infected I removed them. I felt confident that certainly she would be relieved after that operation. A few months later she had still another flare-up, and with it unmistakable signs of a duodenal ulcer. There is now no question in my mind that this case of neuritis was due to the duodenal ulcer. The sinuses and tonsils were diseased and operation probably benefitted the patient, but did not clear up the condition for which the operations were performed.

One of the doctors mentioned using 10 per cent cocain. Any one doing a good deal of nasal surgery would do well to look up the report of the A. M. A. Special Committee on Toxicity of Local Anesthetics, as well as a report of our own Dr. E. F. Howard. It is unwise to use cocain freely.

There are two other methods of treatment recommended that I would like to discuss. One is suction. I used to use suction frequently but have come to the conclusion that general suction is often harmful. I now use suction freely but always with an applicator tip, for the sole purpose of cleansing the nares of discharge. From my experience I would unhesitatingly condemn the frequent use of generalized suction in the nose as commonly performed.

The other subject is irrigation. When the nasal cavities are filled with infected discharge I think it permissible to irrigate them. When there is no such discharge I believe that irrigation, no matter what solutions are used, are harmful. We must remember that the nasal mucous membrane is a ciliated stratified columnar epithelium and irrigations will certainly irritate such a membrane.

Dr. C. D. Blassingame (Memphis): The association of sinus trouble with eye conditions comes to the simple fact that the association is by inference. The doctor associates the eye and nose troubles together. That is not a case of cause and result, and until everything else has been eliminated, you cannot infer that the conditions of eye trouble are caused by sinus.

The diagnosis of the nasal condition is again inference. We cannot look into the sinus and can only tell by the roentgen-ray. To diagnose conditions in the sinus, we must standardize our roentgenograms.

Dr. J. C. Adams (closing): I want to thank each of you for your kind remarks and wish to say that it was very gratifying to me. With reference to the use of cocaine used in treatment of nasal conditions, I think one should always use a very weak solution, because it does not give the reaction that one gets with a stronger solution. As to the use of suction in treating nasal inflammations, I think it is of great benefit if used properly but contraindicated in chronic conditions of the mucous membranes of the nose with polypoid degenerations.

NEW ORLEANS

Medical and Surgical Journal

Established 1844

Published by the Louisiana State Medical Society under the jurisdiction of the following named Journal Committee:

S. C. Barrow, M. D., *Ex-Officio*
 For one year: W. H. Seemann, M. D.,
 Randolph Lyons, M. D., Secretary
 For two years: John A. Lanford, M. D.
 For three years: S. M. Blackshear, M. D.,
 H. W. Kostmayer, M. D., Chairman.

EDITORIAL STAFF

John H. Musser, M. D. *Editor-in-Chief*
 Leon S. Lippincott, M. D. *Editor*
 Willard R. Wirth, M. D. *Editor*
 H. Theodore Simon, M. D. *Associate Editor*
 D. W. Jones, M. D. *Associate Editor*
 Jacob S. Ullman, M. D. *Associate Editor*

COLLABORATORS—COUNCILORS

For Louisiana

For Mississippi

H. E. Bernadas, M. D.	J. W. Lucas, M. D.
Daniel N. Silverman, M. D.	L. L. Minor, M. D.
C. C. DeGravelles, M. D.	M. W. Robertson, M. D.
J. B. Benton, M. D.	Thomas J. Brown, M. D.
C. P. Gray, M. D.	Willie H. Watson, M. D.
J. H. Slaughter, M. D.	W. G. Gill, M. D.
D. C. Iles, M. D.	Jos. E. Green, M. D.
J. H. Landrum, M. D.	J. W. D. Dicks, M. D.
	D. J. Williams, M. D.

Paul T. Talbot, M. D. *General Manager*
 1430 Tulane Avenue

SUBSCRIPTION TERMS: \$3.00 per year in advance, postage paid, for the United States; \$3.50 per year for all foreign countries belonging to the Postal Union.

News material for publication should be received not later than the twentieth of the month preceding publication. Orders for reprints must be sent in duplicate when returning galley proof.

THE JOURNAL does not hold itself responsible for statements made by any contributor.

Manuscripts should be addressed to the Editor, 1430 Tulane Avenue, New Orleans, La.

THE CLASSIFICATION OF GOITER.

The American Association for the Study of Goiter has prepared a simple classification of the different types of goiter which they are anxious to have prevail in medical nomenclature. The Association, composed as it is of outstanding students of thyroid disease, has the authority of accomplishment, and it would seem to the unprejudiced that the classification that it has advocated should receive general recognition throughout the country. If this classification is followed, there would be less misunderstanding concerning the intent and meaning of

authors and writers of goiter subjects than there has been in the past.

The clinical classification is as follows:

Type 1—non-toxic diffuse goiter; Type 2—toxic diffuse goiter; Type 3—non-toxic nodular goiter; Type 4—toxic nodular goiter.

Type 1 includes congenital goiter, the goiter of childhood, adolescence, and pregnancy, and represents the large majority of inactive (?) colloid goiters of the early decades of life.

Type 2, the toxic diffuse goiter, is the toxic hyperplastic goiter of former days. The new term is preferred to the one usually employed, exophthalmic goiter or one or another of the eponyms such as Parry's, Grave's or Basedow's disease. The atypical varieties, which probably represent variations of the toxic hyperplastic goiter, are included under this particular type.

Type 3 represents the nodular goiter without any symptoms relative to thyroid disfunction other than hypofunction. These goiters in the past have frequently been spoken of as non-toxic adenomatous goiter, fetal or adult.

Type 4 is designated as the toxic nodular goiter. The Association writes that under this classification are included first the nodular goiter with toxic symptoms, sometimes called toxic adenomatous goiter, the result of perversion of the secretion and the degenerative changes of component tissue. The second is the nodular goiter with toxic symptoms in which there is as well an associated histo-pathology of toxic hyperplastic goiter. This sub-type has been referred to as secondary Graves disease or adenomatous goiter with hyperthyroidism. The third sub-group of type 4 includes nodular goiter with toxic symptoms due to a combination of the first two sub-classifications in this type 4 group. In the past this has often been referred to as the mixed type of goiter.

Malignant changes may take place in any one of these four main types. In such a case they should be classified as malignant goiter of that type in which the malignancy has occurred. Cretinism and similar conditions are sequelae and not types of varieties of goiter. It is important not to confuse varieties and sequelae with types. Hemorrhagic, cystic, adolescent, intra-thoracic, substernal or congenital are proper terms to describe varieties and clinical manifestations, but only the standard characteristics should be used to designate types.

Of course, it is appreciated that all goiter students are not one in their acceptance of this or any other classification of goiter. This particular classification does not seem to be a very great improvement over that of Marine. It is rather unfortunate that the term "toxic" is employed to designate different types of goiter. Strictly speaking, toxic means produced by poison or pertaining to a toxin, so that the word is not accurately applicable to the description of a condition in which there is a perversion of secretion of a gland which can not truly be said to be a poison. This comment may be too critical, but nevertheless, if a standardized classification of nomenclature is to be employed throughout the country, it should be exact and accurate.

The American Association for the Study of Goiter is to be congratulated upon their efforts to clarify the undoubtedly hazy atmosphere of goiter classification. Even if exception may be taken to the classification, unless there is some one or some body willing to act as proponents of another classification, it would seem wise to accept the present one which has been prepared by a group of men whose interests are primarily in the study of goiter.

THE SOUTHERN MEDICAL.

The plans for the Southern Medical Association Meeting in New Orleans are progressing rapidly. The Local Committee of the Orleans Parish Medical Society has virtually completed all their arrangements for the reception and entertainment of the guests throughout the South. The scientific programs are completed and will be received by the members of the Southern Medical Association in the relatively near future.

The man who is not a member of the Southern Medical Association should consider deeply the advantages of belonging to this particular organization. Especially does this apply at this time to the doctors in Louisiana and Mississippi. A splendid meeting will be held in New Orleans, at a time of the year when the climate is most salubrious and when a scientific relaxation would be of particular benefit to the busy doctor who has been active throughout the hard summer. To the doctors in these two States, the nearness of New Orleans to their home towns will reduce travel and traveling expenses to a minimum, and necessarily will cut down on the length of time that they will be away from their practice. It is respectfully suggested that those members of the Mississippi State Medical Association and Louisiana State Medical Society, who have not in the past attended some of these meetings, give the present New Orleans Meeting a try, see if they do not like this particular meeting, and find out if they do not think that it will be well worth their while to become ultimately members of the organization.

A REQUEST.

At a recent meeting of the Journal Committee, Dr. Barrow, President of the Louisiana State Medical Society, suggested that it would be of interest to the readers of the Journal to have published from time to time articles dealing with the economic problems that confront the physician, and to have likewise papers that dealt with

some interesting phase of forensic medicine or even an occasional contribution on medical ethics. The idea is a most excellent one, which appealed strongly to the members of the Journal Committee. There is no question but that such articles are of lively interest to the medical profession, and often may be read when a purely scientific treatise or paper may be hastily scanned or neglected entirely. The function of a medical journal largely is to present scientific data and facts which will keep the reader abreast of scientific medicine of the moment. A State Journal, however, has somewhat different functions from that of being purely a scientific medium for the expression of the thoughts of the contributors. A State Journal should contain news of the activities and doings of its members; it should tell of the activities that are going on in various hospitals and medical centers of the State; and it should inform the members of the States which it represents of the usual and unusual in medicine which is observed at these hospitals. Dr. Barrow's suggestion of an additional type of information to be conveyed to the Journal subscribers is an excellent and splendid conception, but, and

this is a very large but, the difficulty lies in securing papers of this character. It was suggested that members of the Mississippi or Louisiana State Medical Society be requested to submit such papers by personal solicitation of the Editor. This has been done, and the response has been entirely negative. It is hoped that there may be a considerable number of men in the two States whom the Editor does not come in contact with personally, who may have contributions of this type or who may have ideas and thoughts concerning medical economics, forensic medicine, or medical ethics, which they would be willing to put down on the typewritten sheet and send to the Editor.

This is a request for such material. On account of the necessity of printing at spaced intervals papers that have appeared at the State Medical Societies, it often happens that publication is considerably delayed of the scientific articles presented at these meetings, but if any individual member of the States of Louisiana and Mississippi will send in papers of the above type, a relatively prompt publication of these articles can be promised.

HOSPITAL STAFF TRANSACTIONS

VICKSBURG HOSPITAL.

Staff Meeting, August 13, 1931.

Abstract.—Case Report of Acute Tetany.—Dr. W. G. Weston.

This case is reported, because of the infrequency of the occurrence of this condition in adults. Berkely in Blumer's Therapeutics states that hardly more than 100 cases have been reported in adults. In Europe, however, it is stated to be more frequent and occurs at all ages.

Various causes have been given as to the factor concerned in the production of tetany: (a) The epidemic type seen in Europe which is accompanied by slight fever and thought to be infectious. (b) Tetany secondary to gastric and intestinal disorders. (c) Tetany following chloroform, ergot, lead, alcohol, also following onset of uremia. (d) Tetany following acute infections. (e) Tetany accompanying pregnancy which may recur

with subsequent pregnancies. (f) Tetany after thyroidectomy. (g) Tetany accompanying Basedow's disease, cerebral tumor, cyst of cerebellum, syringomyelia.

Patient: Female, white, aged 28 years. Patient was first seen on July 9, at which time she complained of a tight feeling in chest and throat with difficulty in breathing and cramping of hands and arms. The onset of present condition was rather abrupt. While patient was in bathing, she noticed difficulty in breathing and a sensation of choking in chest. At this time there was also numbness and tingling of hands and arms with cramping. It was necessary for her to be helped from the bathing pool. Following this she came to the clinic and was seen by Dr. W. H. Parsons and myself.

Personal History: Married; three children living and well. History of past illnesses not remarkable and history by systems not remarkable.

Physical Examination: Examination of head, eyes, ears, nose and mouth not remarkable except for two devitalized teeth. Neck: thyroid slightly enlarged; otherwise negative. Chest: not remarkable. There was no evidence of respiratory difficulty in spite of patient's complaint of difficulty in breathing. Heart and lungs negative on physical examination. Blood pressure: 118/72. Abdomen negative except for tenderness over kidney region. Vaginal: relaxed perineum. Uterus: third degree retroversion, moderately enlarged; cervix lacerated and inflamed: Extremities: moderate degree of rigidity of arms and definite spasm of both hands with flexion of phalangeal joints, the thumb being flexed in palm. Fingers could not be extended and upon forcible extension, returned to former position. Right hand was more involved. Nervous system: reflexes active, but not exaggerated. Chvostek's sign not elicited. Trousseau's sign (tourniquet) not attempted as spasm was already present.

Laboratory: Kahn negative. Urine negative. Blood: white blood count 9,500, polynuclears 55 per cent, hemoglobin 72 per cent. Blood calcium 8 mg. per 100 cc.

TREATMENT.

Patient given 10 cc. of 5 per cent calcium chloride intravenously and spasm relaxed in about 15 minutes, but muscles remained sore. Put on calcium lactate, 20 grains every four hours, and parathyroid substances, .1 grain twice daily. Condition improved and patient was discharged on July 12, 1931. Calcium lactate, 10 grains every four hours and parathyroid .05 grain twice daily prescribed.

July 13, 1931—Patient seen again with signs and symptoms as above. Relieved by calcium chloride intravenously.

July 15, 1931—Seen again because of same condition. Relieved by calcium chloride intravenously.

July 17, 1931—Another attack. Given calcium chloride and brought into the hospital.

July 19, 1931—Called to hospital. Patient again having tetany. Given calcium chloride intravenously. Patient relieved.

July 22, 1931—Patient operated on for perineal laceration and endocervicitis. No recurrence of symptoms.

August 5, 1931—Patient discharged.

VICKSBURG SANITARIUM AND CRAWFORD STREET HOSPITAL.

Staff Meeting, September 10, 1931.

Abstract.—Carcinoma of the Ovaries.—Dr. G. M. Street.

Patient: White, female, aged 65, dietitian; admitted to hospital August 6, 1931 and discharged September 2, 1931.

Chief Complaint: Slight bloody flow from vagina at irregular intervals for past three months; no pain; no discomfort and feels as well as she ever did; comes to hospital because she knows there should be no uterine bleeding. Menopause about twenty years ago and has had no vaginal discharge of any kind since then up to the past three months. Never was pregnant.

Past History: Was almost an invalid from age of 30 to about age 45 when menopause occurred; suffered with chronic "ovarian and menstrual trouble" as she calls it. Had numerous attacks of soreness and pain in lower abdomen that would keep her in bed many months at a time. Was advised many times then to have an operation which was always refused by her and her husband. Never had any serious illness other than attacks mentioned above. No history of tuberculosis or cancer in family.

Physical Examination: Well developed; well nourished; somewhat obese; no appearance of senility. One would not think she was over 55 or 60, although she is 65 years of age. General physical examination reveals nothing remarkable other than in the lower abdomen and pelvis. The cervix is atrophic, not ulcerated, and there is very slight bright red discharge from the uterus. Bimanual palpation reveals a mass in the region of the left ovary, about the size of an orange, not freely movable, not tender; feels like a solid tumor. The uterus appears to be very small and forward. The right adnexa cannot be mapped out accurately. There are no large masses on right side of uterus.

Blood: erythrocytes 4,100,000; hemoglobin 80 per cent; leukocytes 10,700; small lymphocytes 34 per cent, large mononuclears 3 per cent, polymorph. neutrophils 60 per cent, polymorph. eosinophiles 3 per cent, no malaria found. Coagulation and bleeding time normal. Wassermann, Kline and Young and Kahn tests negative. Urine negative.

Procedure: In view of the fact that the patient was physically in excellent condition except for the pelvic findings and especially on account of the probability of malignancy in the ovarian tumor, operation was advised.

Operation on August 7, 1931: Low mid-line incision. Pelvic organs are all densely adherent from old adhesions. Left ovary is about the size of large orange and appears solid, somewhat irregular and nodular, it is bound down with dense adhesions but shells out without great difficulty. The right ovary is only slightly larger than normal, but is densely adherent to lateral pelvic wall and posterior surface of broad ligament. Both tubes are sealed at fimbriated extremity, distended with fluid, and are about the size of a finger; they

present the typical appearance of a bilateral hydrosalpinx. One tube ruptured while being mobilized and contains clear fluid. The uterus is very small and atrophic. The appendix is large, adherent and definitely diseased. There is no evidence of glandular involvement or metastases any where in abdomen. Both ovaries and tubes and appendix removed. Wound closed without drainage.

Patient had an uneventful convalescence from the operative procedure. Wound healed by primary union. Pathological examination of tissues showed, adeno-carcinoma of ovary, bilateral; salpingitis, chronic, bilateral; salpingitis, acute, right; appendicitis, acute and chronic.

On the 15th post-operative day 2400 mg. hours of radium were given in the fundus of the uterus. At the same time deep therapy roentgen-ray through the pelvis was started and will be continued at intervals until a full depth dose of radiation is administered.

Discussion by Dr. L. S. Lippincott: Primary carcinoma of the ovary is said by certain authors to constitute about ten per cent of ovarian tumors. Our percentage of primary carcinoma is lower than this. Two groups are recognized, the solid and cystic forms. In this case the cancer is of the solid form. In our experience the cystic form, especially the papilliferous type is the more common.

The solid primary carcinoma of the ovary is usually unilateral but bilateral involvement is by no means rare. In this case the tumor of the ovary was encapsulated and the surface smooth and glossy. The tumor of the right ovary was very small, only found on microscopic examination. The consistence of these tumors varies with the amount of connective tissue. In this case the connective and glandular elements were in about equal amounts.

In these solid tumors, it is not uncommon to find small calcareous balls so called psammoma bodies. At times these may be numerous. These calcareous deposits were present in the tumor of the right ovary in this case.

Metastasis is usually to the lymph nodes of the region and through the lymphatic spaces into the uterus and into the opposite ovary.

An interesting finding in this case was the presence of ripening follicles in the right ovary. This activity may have accounted for the recurrence of uterine flow.

Abstract.—Thyrotoxicosis.—Dr. L. J. Clark.

Patient: Male, aged 59, white, married, admitted to hospital June 23, 1931.

Chief Complaint: Nausea; inability to keep food down; loss of weight, 35 pounds in three

months; nervousness; frequent headaches and blocked nasal passages for two months; pains in right shoulder and arm. First noticed three months ago that he had a severe pain in back followed by rather severe head cold with blockage of nose and had a rather severe knocking in head with fever and headache. Swallowing then became difficult and since then he has been able to swallow only certain things, which he thinks is the cause of his loss of weight. Has had no other pains of consequence. Is constipated; does not vomit; no passage of blood. About six weeks ago had a very severe attack of diarrhea lasting three weeks. Has noticed recently that he is losing his voice and can hardly talk above a whisper at present; has a constant desire to clear his throat. Pain in right shoulder and arm is severe in exercising; there is some swelling of hands. No fever for past thirty days. Marked insomnia; is often awakened with desire to clear throat. For past two or three days has had an intense itching of body but no evidence of rash.

Past History: Childhood diseases; pneumonia five years ago; influenza in 1918. No accidents; no operations; frequent attacks of malaria.

Family History: Father died of apoplexy at age 65; mother died at age 49, cause unknown; one brother, 64 years of age, living and well; one sister, age 62, living and well. No history of tuberculosis, cancer, or insanity. Seven children living and well.

Physical Examination: Temperature 98.6°F; pulse 90, regular; blood pressure 165/85; respiration 28, rather accentuated inspiration. Fairly well developed; poorly nourished; apparently acutely ill. Eyes show rather glassy stare but no exophthalmos. There is a definite palpable mass on the left side of neck in region of thyroid, about the size of a small walnut. Tonsils small and chronically diseased. Heart accelerated; slight systolic murmur at apex not radiated. Some tenderness in splenic region.

Urine: Large trace of acetone; some fresh red blood cells; numerous bacilli. Prostatic expression: No pus or organisms found. Blood urea nitrogen, 25 mg. per 100 cc.; blood sugar, 87 mg. per 100 cc. Blood: Hemoglobin 62 per cent; erythrocytes 3,888,000; leukocytes 5,200; small mononuclears 22 per cent, large lymphocytes 10 per cent, large mononuclears 6 per cent, polymorph. neutrophils 60 per cent; eosinophiles 2 per cent; no malaria. Blood Wassermann, Kline and Young and Kahn tests negative. Sputum: No B. tuberculosis. Feces: No blood or parasites.

Examination by oto-laryngologist showed some edema of vocal cords. Roentgenologic study of sinuses and thorax negative. Fluoroscopic examination of stomach showed some evidence of irregu-

lar filling at pyloric region, suggesting carcinoma. Repeated examination did not bear this out. Gall-bladder filled well.

Fractional gastric analysis showed no lactic acid; no blood; total acidity 38; free HCl. 20, combined 4.

Procedure: Patient was treated with glucose infusions daily and bromide and allowed to have a regular full diet. He responded well and gained weight. Sent home in ten days free of all symptoms. Advised to return later for further study. The clinical picture was that of a grave, rapidly wasting disease, possibly carcinoma of some vital digestive structure. Diabetes, verging on diabetic coma was at first suspected but was disproved.

Three weeks later: Readmitted, stating that he had improved nicely for about ten days at home and had then suddenly developed same symptoms first presented. Tremor was evident and the small palpable mass in the thyroid more prominent.

Basal metabolism determination showed a rate of +70 per cent (DuBois) and +94 per cent (Harris-Benedict). Patient was given large doses of Lugol's solution with bromide and allowed to go home for further treatment.

Five weeks later: Patient again returned (September 9) stating that he had improved nicely, gaining approximately 15 pounds in weight, up until about ten days ago, when he refused to eat and began losing weight again. At this time he would "crave" sweets only. Has noticed that for the past five or six days the itching of the skin was more intense and that his skin was jaundiced.

Recent tests show a strong direct Van den Berg reaction; large trace of bile in the urine; basal metabolic rate +27 per cent (DuBois) and +34 per cent (Harris-Benedict). Glucose tolerance test shows a slight delay in return to fasting blood sugar level. Hemoglobin is 70 per cent and erythrocytes 3,568,000.

TRANSACTIONS OF ORLEANS PARISH MEDICAL SOCIETY

CALENDAR.

October 1.—Pathological Conference, Hotel Dieu, 11 A. M. to 12 Noon.

October 1.—Physiology Seminar, Tulane Medical School, 5 P. M.

October 5.—Eye, Ear, Nose and Throat Hospital Staff, 8 P. M.

October 9.—Pathological Conference, Hotel Dieu, 11 A. M. to 12 Noon.

October 9.—Physiology Seminary, Tulane Medical School, 5 P. M.

October 9.—French Hospital Staff, 8 P. M.

October 12.—ORLEANS PARISH MEDICAL SOCIETY, 8 P. M.

October 14.—Touro Infirmary Staff, 8 P. M.

October 15.—Eye, Ear, Nose and Throat Club, 8 P. M.

October 16.—Pathological Conference, Hotel Dieu, 11 A. M. to 12 Noon.

October 16.—Physiology Seminar, Tulane Medical School, 5 P. M.

October 16.—Mercy Hospital Staff, 8 P. M.

October 19.—Hotel Dieu Staff, 8 P. M.

October 20.—I. C. R. R. Hospital Staff, 12 Noon.

October 20.—Baptist Hospital Staff, 8 P. M.

October 20.—Charity Hospital Medical Section, 8 P. M.

October 21.—Charity Hospital Surgical Section, 8 P. M.

October 22.—New Orleans Hospital Conference, I. C. R. R. Hospital, 8 P. M.

October 23.—Pathological Conference, Hotel Dieu, 11 A. M. to 12 Noon.

October 23.—Physiology Seminary, Tulane Medical School, 5 P. M.

October 26.—CHAILLE MEMORIAL ORATION, ORLEANS PARISH MEDICAL SOCIETY, 8 P. M.; Dr. Walter Sistrunk of Dallas, Texas, will be the Orator.

October 30.—Pathological Conference, Hotel Dieu, 11 A. M. to 12 Noon.

October 30.—Physiology Seminar, Tulane Medical School, 5 P. M.

MEMBERS SUBSCRIBING TO THE SOUTHERN MEDICAL ENTERTAINMENT FUND

Dr. John A. Lanford, Treasurer of the Southern Medical Entertainment Fund, has reported the following doctors who have contributed to the entertainment of the Southern Medical visitors in November:

David Adiger, Carroll W. Allen, E. E. Allgeyer, H. B. Alsobrook, T. B. Ayo, Chas. A. Bahn, J. E. Bailey, J. M. Bamber, C. C. Bass, Elizabeth Bass, O. W. Bethea, Bradburn & Bradburn, W. R. Brewster, F. Temple Brown, D. C. Browne, W. R. Buffington, W. W. Calhoun, L. L. Cazenavette, L. L. Chalaron, S. A. Chapman, Frank Chetta, J. W. Cirino, Geo. F. Cocker, Isidore Cohn, J. C. Cole, Rena Crawford, J. C. Derbofen, Lily L. Disimuke, Homer Dupuy, J. B. Elliott, Jr., Allan Eustis, Geo. D. Feldner, Frank Gallo, H. B. Gessner, Florence Ruth Gilpin, Amedee Granger, Geo. L. Hardin, Roy B. Harrison, E. S. Hatch, Katherine Havard, Sam Hobson, C. S. Holbrook, J. Raymond Hume, Jos. Hume, S. R. Humphries, Emmett L. Irwin, Landfried & Irwin, F. M. Johns,

A. C. King, W. A. Knolle, John A. Lanford, J. Browne Larose, John P. Leake, F. E. LeJeune, A. L. Levin, Louis Levy, M. J. Lyons, Shirley C. Lyons, Basil C. MacLean, Urban Maes, Manni Mallowitz, C. W. Mattingly, L. J. Menville, L. A. Meraux, C. Jeff Miller, M. W. Miller, P. F. Murphy, J. H. Musser, Edward McCormac, Spencer B. McNair, Adolph Noha, J. A. O'Hara, J. P. O'Kelley, T. H. Oliphant, R. A. Oriol, H. J. Otto, F. A. Overbay, Jos. P. Palermo, Wm. H. Perkins, J. M. Perret, W. D. Phillips, L. L. Rabouin, J. B. Rateau, W. A. Reed, I. L. Robbins, W. H. Robin, J. C. Rodick, W. H. Roeling, J. N. Roussel, J. J. Ryan, P. B. Salatch, L. C. Scott, Sellers & Sanders, Sidney K. Simon, W. C. Smith, Edmond Souchon, Marion Souchon, Ambrose H. Storck, G. J. Taquino, N. F. Thiberge, H. R. Unsworth, M. T. Van Studdiford, E. H. Walet, H. W. E. Walther, J. D. Weis, G. Richarda Williamson, S. H. Wills, M. F. Wilson, W. R. Wirth, and J. J. Wymer.

There is still a considerable amount of money to be raised for the very modest budget which has been made up for the entertainment of these visitors.

All members of the Orleans Parish Medical Society who have not as yet subscribed are earnestly urged to send in their subscription as soon as possible. The list of the donors to this fund will be published in full in the November number of the Journal.

A joint meeting of the Orleans Parish Medical Society Child Welfare Committee and the Child Welfare Association was held recently and the relationship between the organized medical profession and this charitable organization was fully discussed.

The Committee of Arrangements met and the details of the organization's entertainment of the Southern Medical Association visitors were discussed.

On Friday, November 20, during the meeting of the Southern Medical Association, clinics will be held at the auditorium by the members of the profession from New Orleans.

The following program has been arranged by the Committee on Convention Clinics.

The following gentlemen will be on the program:

Ear, Nose and Throat.

Dr. Homer Dupuy—Malignancy of the Upper Maxilla.

Dr. H. L. Kearney—Treatment of Lung Abscess by Bronchoscopic Drainage.

Eye.

Dr. Henry N. Blum—What the Layman can do for the Prevention of Blindness.

Genito-Urinary.

Dr. Joseph Hume—Significance of Hematuria.
Dr. W. A. Reed—Infections of the Prostate Gland.

Pediatrics.

Dr. W. W. Butterworth—Appendicitis in Children.

Dr. C. J. Bloom—Rickets—A New Treatment.

Surgery.

Dr. E. D. Fenner—The Vital Importance of Early Diagnosis and Prompt Treatment in Acute Osteomyelitis.

Dr. E. D. Martin—

Dr. Alton Ochsner—The Diagnosis and Treatment of Bronchiectasis.

Dr. Emmett Irwin—Some Observations on the Cure of Aneurysm.

Dr. J. T. Nix—Intestinal Anastomosis.

Neurology.

Dr. Harry H. Daspit—Thrombosis of Spinal Arteries.

Dr. Gilbert Anderson—Headache in Brain Tumor.

Gynecology.

Dr. C. Jeff Miller—Gynecology Problems of the Colored Woman.

Dr. H. W. Kostmayer—Office Gynecology.

Gastro-Enterology.

Dr. S. K. Simon—The Hypersensitive Colon and Its Treatment.

Medicine.

Dr. J. Birney Guthrie—Achyilia Gastrica.

Dr. I. I. Lemann—The Diagnosis and Treatment of Diabetic Coma.

Dr. J. H. Musser—Some Blood Dyscrasias.

Dr. Chas. Eshleman—

Dr. B. G. Efron—Management of the Asthmatic.

Public Health.

Dr. Basil C. McLean—Hospital Policies and Pocketbooks.

Dr. W. R. Brewster—Relationship of the Physician and Company in Industrial Surgery.

It is with regret that we report the deaths of two of our members during the past months. Dr. Aristides Agramonte, an Honorary Member, and Dr. J. J. Sarrazin, an associate member.

The following applications for membership in the Orleans Parish Medical Society are posted:

Active Membership—Drs. Hebert Cannon, Harry B. Levey, Henry G. Butker, Jacob O. Hoth, Morris Shushan and J. Thornwell Witherspoon.

Interne Membership—Pascal L. Danna, Harrie A. Patterson and Thomas R. Ramsay.

H. Theodore Simon, M. D.,
Secretary.

LOUISIANA STATE MEDICAL SOCIETY NEWS

H. Theodore Simon, M. D., Associate Editor.

THE MEETING OF THE AMERICAN MEDICAL ASSOCIATION.

After going to press we have received official notice that the American Medical Association will meet in New Orleans, May 13, 1932. The lateness of receipt of this notice in relation to the time of going to press prohibits more than this brief announcement at the present time.

THE MATAS BIRTHDAY VOLUME.

Within the next few days the Matas Birthday Volume, a collection of surgical essays written in honor of Rudolph Matas will appear from the press of Paul B. Hoeber, Inc., New York. The material contained within this volume represents a splendid group of articles on vascular surgery, and another particular valuable collection of cancer statistics and articles on the surgical management of cancer of the stomach, large bowel, and the breast. The authors, nineteen in number, are not only from this country, but Spain, Scotland, Italy, and France are also represented. American authors include such men as M. R. Reid, Evarts A. Graham, Howard Lilienthal, George W. Crile, John B. Deaver, H. A. Royster, J. C. Bloodgood, and others. From the preliminary announcement by the publishers of this volume, every man interested in surgery should have one for future reference. The very many friends and hosts of admirers of Dr. Matas, even if they are not primarily interested in surgery, should have on their library shelves one of these volumes which has been published in honor of our great New Orleans surgeon.

A NOTICE.

To the Members and Eligible Members of Sixth District Parish Medical Society:

Our Fall Meeting takes place at Jackson, Louisiana in the East Louisiana State Hospital, on October 14, 1931, beginning on Wednesday at 10 a. m. sharp. At the last meeting of this society held in Baton Rouge, it was attend by only forty-eight physicians and there are over one hundred and fifty eligible members. The President of our State Medical Society, Dr. S. C. Barrow, has been using every energy and effort to get us organized up to the one hundred per cent notch in Louisiana. He urges and stresses the necessity of keeping the District Societies alive and active with a full quota of eligible membership. He stresses the importance and necessity of District organizations. He will be present at the meeting with us and we promise you a splendid program. If you know Dr. Smith and his staff, you know a royal welcome awaits us. Let us take

the "bit" in the mouth and get organized to the one hundred per cent so that we can feel a pride in the Sixth. Those of you, who have not paid your dues in Baton Rouge in April last are delinquent and we ask that you send check immediately to Dr. H. D. Bullock, Secretary, Covington, Louisiana, or to me.

Please don't forget the time and date and let us go in full force—let every eligible member be with us.

Yours sincerely,

F. F. Young, President,
Sixth District Medical Society.

AVOYELLES DOCTORS HOLD A GOOD MEETING AT MANSURA.

The Avoyelles Parish Medical Society held its regular quarterly meeting at the residence of Dr. Kirby A. Roy, Mansura, Wednesday evening, September 9. The following members answered the roll: Dr. R. G. Ducote, President, Drs. Regard, Roy Jones, Couvillon, W. F., Couvillon, S. J., Quirk, Wilson. Guests consisted of Dr. Geo. L. Drouin, Dr. Ben Chamberlain and Dr. Lester J. Williams both of Baton Rouge.

A paper entitled "Hypertension and Its Causes" was read by Dr. H. C. Jones of Bunkie. The discussion was opened by Dr. Emil Regard of Mansura. The subject incited interest and was well discussed.

Dr. Lester J. Williams former President of the State Body and the Louisiana Counselor for the American Radiological Society presented to the Avoyelles doctors a very interesting paper on "Radium in Cancer of the Cervix," a topic of real and vital interest to the general practitioner. The discussion of Dr. Williams' paper was opened by Dr. S. J. Couvillon of Moreauville. Thanks were tendered to Dr. Williams for so splendid a paper, one which dealt with a condition so prevalent and so often overlooked by the average practitioner. The paper was well received and was well discussed.

After a sumptuous supper served by Mrs. Roy, the Society went into miscellaneous matters and adjourned to meet at Marksville Wednesday evening, December 9, 1931, at which meeting the "Spinal Anesthesia" technic will be demonstrated by motion pictures to be supplied to the Avoyelles physicians in films by the Metz Laboratories of New York. At the December meeting it's customary to elect officers for the ensuring year and the collection of annual dues, which will form the business phase of this meeting.

S. J. Couvillon, M. D.,
Secretary Avoyelles Parish Medical Society.

MOUTH INSPECTION WEEK.

The week commencing with the first Monday in October is to be designated as Dental Health Inspection Week. All the school children of pre-school age throughout the State will be subjected to a dental inspection during this time in order that both educational and corrective work can be begun at once. These inspections are to be made under the supervision of the Parish Health Unit, or if none exists in the Parish, under the supervision of the Parish Dental Health Committee, and may be made by any one they decide upon, viz., members of the Health Unit, Dentists, Dental Hygienists, or teachers trained and qualified to do the work. If a single dental defect or an unclean mouth is found, the child is instructed to see the family dentist for an examination and is provided with a dental inspection card, which is filled out by the inspector and is to be presented to the dentist when reporting to him for the examination and correction.

The Five-Year Dental Health Educational Program for Louisiana is the result of a State-wide survey by the Bureau of Dental Health Education and has as its object the education and instruction of children, parents and teachers in matters of oral hygiene and nutrition and the correction of existing dental defects. The program is primarily educational, but with the present day knowledge of the serious consequences from neglected diseased dental conditions, the campaign would fall far short of its purpose if provision were not made for the correction of actually existing mouth disorders even in those children whose parents or guardians are unable to pay for dental services.

This campaign will be directed by the Bureau of Parish Health Administration of the State Board of Health with the Bureau of Dental Health Education of the Louisiana State Dental Society acting in an advisory capacity. The work will be carried on throughout the State by the Parish Health Units, State Educational forces and our own working agencies. This Bureau will arrange for Radio talks on Dental Health Education.

A Dental Health Week, under the auspices of the Bureau of Parish Health Administration of the State Board of Health and with cooperative efforts of the State Educational forces, the Bureau of Dental Health Education and members of the Louisiana State Dental Society, will be observed in every community in Louisiana during the first week in October.

It is earnestly requested that parents take their children to the designated dentist of their locality at the appointed time.

J. A. O'Hara, M. D., President,
Louisiana State Board of Health.

THE SHREVEPORT FALL CLINICS.

The preliminary program of the 1931 fall clinics of the Charity Hospital of Shreveport has just come to hand. These clinics will be held October 21-23, and a most excellent program has been provided. Surgery, internal medicine, obstetrics, urology, x-ray, and eye, ear, nose and throat disorders will all have representatives at the various clinics.

DALLAS SOUTHERN CLINICAL SOCIETY NEWS.

Throughout the summer, the Executive Committee of the Dallas Southern Clinical Society has held weekly meetings perfecting plans for the society's Fourth Annual Spring Conference to be held in Dallas March 28 to April 1, 1932, inclusive. Preparations are already far in advance of those for last year. This society, whose sole purpose is to make available to the doctors of the South the post-graduate teaching material of Dallas, has held three notably successful annual meetings which have occasioned much favorable comment. The attendance last year was just short of 1,200, and plans are being made to entertain at least 2,000 in 1932.

HEALTH OF NEW ORLEANS.

For the week ending August 15, there were 133 deaths in the City of New Orleans, 79 in the white population and 54 in the colored. This gives a death rate of 14.8, considerably below the average death rate of the first 33 weeks of the year. The week ending August 22 shows a death rate slightly higher, being 15.1, the result of 135 deaths, 83 of which were in white individuals and 52 colored. This rate corresponds almost exactly to the same week in 1930. The following week, the Division of Vital Statistics of the Bureau of the Census reports a death rate of 15.4, as a result of the dying of 83 white and 55 colored citizens of the City. In the corresponding week of 1930 the death rate was 14.2. The infant mortality rate during this week was 82, because of the death of 15 infants under one year of age. For the week ending September 5, the death rate had increased to 17.0, as a result of 152 deaths, 87 white and 65 colored. The infant mortality rate had dropped to 66, as only 12 infants under one year of age died during this week.

MORBIDITY WEEKLY REPORT OF THE STATE OF LOUISIANA.

Dr. J. A. O'Hara, Epidemiologist of the State of Louisiana, in collaboration with the U. S. Public Health Service, has issued weekly morbidity reports which are here briefly abstracted. For the week ending August 22, 1931, the reportable diseases that occurred in double figures were as

follows: Syphilis, 95 cases; typhoid fever, 69; gonorrhea, 33; pulmonary tuberculosis, 29; diphtheria, 21; malaria, 17; scarlet fever, 12; and pneumonia, 11. The typhoid fever cases were reported from 22 parishes, with Orleans Parish having 16 cases, 11 of which were imported. For the week ending August 29, 55 cases of typhoid fever were reported, Orleans Parish having 18, 13 of these cases being brought to the City from out of town communities. During this week there were also reported 24 cases of diphtheria, 26 of malaria, 22 of pneumonia, and pulmonary tuberculosis 33. For the week ending September 5, typhoid fever cases had dropped to 39, malaria had jumped up to 49 reportable cases, pneumonia 63, tuberculosis 58, and diphtheria 31. There were reported 64 cases of syphilis and 25 cases of gonorrhea. It is rather of interest that, despite the severe epidemic of poliomyelitis which is now prevalent in the northern and eastern sections of the United States, only 2 cases in the last month have been reported in Louisiana. For the week ending September 12, typhoid fever had increased to 60 cases, more than double the five year average. Forty-three cases of pneumonia were reported, 36 of pulmonary tuberculosis, only 12 cases of malaria, and 16 cases of syphilis. Three cases of small-pox were also reported this week, one case of meningitis, and one case of undulant fever.

Dr. John Menville, son of Dr. L. J. Menville, left recently for Baltimore to accept a Fellowship in the Surgical Pathological Laboratory, John Hopkins Hospital.

Dr. Leon J. Menville attended a Bone Tumor Clinic held recently at Johns Hopkins University, as the guest of Dr. J. C. Bloodgood.

Dr. Oscar Bethea addressed the Lafourche Medical Society recently on the subject of "Recent Advances in Diagnosis." Dr. Bethea and Dr. John T. Sanders spoke before the Florida Parishes Medical Society September 10, at the Southern Hotel, Covington. On October 7 Dr. Bethea will address the Eighth Congressional District Medical Society, the subject of his talk being "Angina Pectoris."

Assistant Surgeon R. C. Kash of the U. S. Public Health Service has been relieved from duty at the Marine Hospital, Pittsburgh, and assigned to the Marine Hospital at New Orleans.

EXAMINATION FOR ENTRANCE INTO THE REGULAR CORPS OF THE UNITED STATES PUBLIC HEALTH SERVICE.

Examination of candidates for commission as Assistant Surgeon in the Regular Corps of the U. S. Public Health Service will be held at the following named places on November 2, 1931:

Washington, D. C.
Chicago, Ill.
New Orleans, La.
San Francisco, Cal.

Candidates must be twenty-three years and not over thirty-two years of age. They must have been graduated in medicine at a reputable medical college and have had one year's hospital experience or two years' professional practice. They must satisfactorily pass oral, written, and clinical tests before a board of medical officers and undergo a thorough physical examination.

Successful candidates will be recommended for appointment by the President, with the advice and consent of the Senate.

Request for information or permission to take this examination should be addressed to the Surgeon General, U. S. Public Health Service, Washington, D. C.

CORRESPONDENCE.

New Albany, Miss.

September 5, 1931.

The New Orleans Medical Journal,
New Orleans, La.

Dears Sirs:

A man claiming to be Dr. H. N. Mayes of New Albany, Miss., is traveling over the States of Arkansas, Mississippi and Louisiana, swindling doctors and druggists by passing forged checks in amounts ranging from ten to fifteen dollars.

He has been to Dr. King Wade of Hot Springs, Ark.; Dr. Spitzberg of Little Rock, Ark.; Dr. Cothern of Jonesboro, Ark., and to Bauxite, Ark. He has forged checks in my name at Bogalusa, Tulula, and Baton Rouge, La. In Mississippi he has been to the Hyde Drug Store at Poplarville and to Columbia. In Meridian he tried to get Dr. W. J. Anderson to cash a check, however, Dr. Anderson was suspicious and did not do it. The last place heard from was Union, Miss. There on September 2, 1931, Dr. W. A. McMahan cashed a check for ten dollars.

Several of the doctors mentioned above have described the man as follows: About 5 feet 7 inches tall, nice looking, good complexion, dark hair, clean shaven, about 48, wore shell rim glasses

with light colored frame, and weighs about 175 pounds.

Will you please give this all the publicity you can in order that every one may be on the lookout for him, as he will, no doubt, use some other doctor's name when he goes into other States.

Thanking you, I am,

Yours very truly,

H. N. Mayes, M. D.

New Orleans Medical and Surgical Journal,
1430 Tulane Avenue,
New Orleans, Louisiana.

Dear Sirs:

The problem of Medical Economics, so ably voiced by our president of the Louisiana State Medical Society, Dr. S. C. Barrow, is an important subject and a timely topic which should be of intense interest to all members of the medical profession. Past traditions and so-called ethics have held that such commercial references should not be openly discussed by the physician imbued with altruistic principles. But modern demands make it imperative that the physician, anxious to render his patients the best of services, must be properly equipped, both with latest knowledge of medical teachings and modern scientific equipment with which to obtain the best and most efficient therapeutic results in treating patients entrusted to his care.

Dr. Barrow has called attention to another side of this economic problem—the indigent sick. I firmly believe as he does that the indigent sick should be a State or Community responsibility and not, as is so often the case, a burden which falls upon the shoulders of the already overtaxed physicians in a community. Just as an illustration, a physician is called on to care for a Red Cross case, or a destitute family. The Red Cross representative is paid; if clothes, food, hospitalization or transportation, are furnished the patient, these are all paid for! all except the physician, who does not even think of any remuneration for the services he renders. In many instances the physician is the sole responsible party and he is expected to assume all future obligations of the patient entrusted to his care without reward and in many cases not even gratitude. Why should such a condition exist? I fear we physicians are largely if not solely to blame—because we are trying to surround ourselves with the same halo of professional tradition that actuated our medical ancestors when economic conditions and demands were less exacting than they are today.

The present-day physician need not violate the ethics of his profession, induce criticism, or cause disparagement by facing the issues squarely, by demanding a just reward for services well rendered. It is high time that the members of the medical profession consider their overhead, figure a just return upon their investment—the only sound principles upon which any enterprise can exist and render efficient services.

We, of the medical profession, should, one and all, heed well his words of counsel, and stand solidly behind him in support of the principle he advocates, for only by doing so will we reap our just rewards during our years of utmost medical activity and spare ourselves and our families the embarrassment of indigency in our lean declining years.

Very sincerely,

C. A. Weiss, M. D.

WOMAN'S AUXILIARY NEWS.

It is with much pleasure that we publish the message of the president of the Woman's Auxiliary of the American Medical Association, presented at the meeting of that organization in Philadelphia, June, 1931. We include also the names of the officers elected at this meeting.

THE PRESIDENT'S MESSAGE.

The reports of the chairmen of the various national committees and of the state presidents indicate unmistakably to the Auxiliary women everywhere that as doctor's wives we have a definite sphere of influence as members of lay women's organizations. As such we may form a strong bond between the medical profession and the lay public.

Because of this possibility we shall make every effort this year to strengthen our organization both in numbers and in quality of work done.

The greatest demand made upon us is for the right kind of source material for health programs, and for health program speakers.

We are attempting to supply this information through a selected packet of literature, assembled by the Bureau of Public Information of the American Medical Association; by leaflets on communicable diseases compiled from the best recent medical literature and approved by a member of our advisory committee appointed for that purpose; by the dissemination of leaflets on "Some Contributions of Modern Medicine to the World"; by announcement of the American Medical Association radio broadcasts; and by using our best energies to promote the circulation of Hygeia.

We ask that every doctor's wife read the recommendations concerning Hygeia made to the Woman's Auxiliary by the House of Delegates of the American Medical Association. It is found on page 2116 of the June 20 issue of the Journal of the American Medical Association. Please see that your state and county medical societies also take notice of this recommendation of the House of Delegates.

Many auxiliaries are doing outstanding constructive philanthropic work such as contributing to a medical benevolence fund, assisting in hospital auxiliary work and establishing medical student loan funds.

We believe that one of the best services we can render to the medical profession is to make our state and national conventions so attractive that great numbers of our women will be enticed to attend and will influence their husbands to come.

The recent meeting in Philadelphia showed that a convention can serve such a purpose. To this end we are already planning to make the convention in New Orleans the best yet if possible and we herewith invite all the doctors' wives to come and bring their husbands.

I hope your press and publicity chairman will let me talk with you again. Always read her reports and those in the Bulletin of the American Medical Association. In the Bulletin are two pages edited this year, as last, by Mrs. Walter Jackson Freeman, our national president-elect. I commend those pages and these to you and ask your support to make our departments co-operative, useful and successful.

OFFICERS OF THE WOMAN'S AUXILIARY OF THE A. M. A.

Dr. Morris Fishbein, Illinois; Dr. J. H. J. Upham, Ohio; Dr. Olin West, Illinois; Dr. A. R. Mitchell, Nebraska; Dr. J. H. Walsh, Illinois, Advisory Council.

President, Mrs. Arthur B. McGlothlan, Missouri; President-elect, Mrs. Walter J. Freeman, Pennsylvania; Recording Secretary, Mrs. Sherman S. Hesselgrave, Minnesota; Corresponding Secretary, Mrs. James F. Owens, Missouri; Treasurer, Mrs. G. Henry Mundt, Illinois.

First Vice-President, Mrs. James Blake, Chairman of Organization, Minnesota; Second Vice-President, Mrs. James F. Percy, California; Third Vice-President, Mrs. J. Ralston Wells, Florida; Fourth Vice-President, Mrs. Robert W. Tomlinson, Delaware.

Directors: One Year—Mrs. J. Newton Hunsberger, Pennsylvania; Mrs. Ephriam R. Mulford, New Jersey; Mrs. Frank W. Cregor, Indiana; Mrs. Basil L. Connelly, Michigan. Two years—Mrs. Arthur T. McCormack, Kentucky; Mrs. Evarts V. DePew, Texas; Mrs. Willard Bartlett, Missouri.

Chairmen of Standing Committees: Program—Mrs. George H. Hoxie, Missouri; Finance—Mrs. Thomas O. Freeman, Illinois; Legislation—Mrs. Arthur A. Herold, Louisiana; Public Relation—Mrs. A. Haines Lippincott, New Jersey; Hygeia—Mrs. Rogers N. Hebert, Tennessee; Revisions—Mrs. Charles W. Garrison, Arkansas; Press and Publicity—Mrs. Milton P. Overholser, Missouri; Printing—Mrs. Samuel C. Red, Texas; Archives—Mrs. Southgate Leigh, Virginia; Historian—Mrs. Allen H. Bunce, Georgia; Parliamentarian—Mrs. William S. Tomlin, Indiana.

REPORT OF THE PHILADELPHIA MEETING.

The following report of the Philadelphia meeting was compiled by one of our most enthusiastic Louisiana Auxiliary workers, and we feel every doctor's wife will enjoy the reading of it—and may I ask our doctors to point out to their wives these bits of auxiliary news?

THE PHILADELPHIA MEETING

The National Auxiliary meeting in Philadelphia was the largest and most enthusiastic that I have ever had the pleasure of attending. Our quarters were ideal, for we had the roof of one of the best hotels for our exclusive use. This roof was a busy place. I took several doctors from Louisiana around and they all admitted that it looked as if we were "doing things."

Monday there was a pre-convention board luncheon and dinner. The afternoon was given over to round table discussions of important questions. Louisiana was represented by a paper on the "Technic and Value of a Committee on Public Relations," given by Mrs. A. A. Herold of Shreveport.

Tuesday and Wednesday morning all officers, national committee chairmen and state reports were given. These reports were very stimulating and instructive, but I am glad to say that Louisiana had as good a report as any of the States and better than most of them. These reports were absolutely required to conform to the time allotted them and if one was not through when one's time was up the rest of the report was filed. Every State Auxiliary had a report and I think this gives some idea of the interest taken in the work throughout the country.

All afternoons and evenings beginning Tuesday were filled with entertainments. These entertainments were worth-while and were all on a very elaborate scale. Every afternoon there were several and it was very difficult to choose, they were all so alluring. On Tuesday there were four trips planned, one to Valley Forge. On this trip alone there were fourteen buses with 30 women in each.

Thursday morning there was a post-convention board meeting and a general round table discussion presided over by Mrs. McGlothlan, the new national president. At this meeting the chairmen for the year were announced. Louisiana, in the person of Mrs. A. A. Herold, was given the legislative chairmanship for the national auxiliary.

One innovation made at the meeting was the organization of a junior auxiliary. This organization consisted of the doctor's daughters and it was a valuable asset to the Philadelphia meeting. The girls enjoyed getting together so much that they formed a permanent organization and the national auxiliary in the near future will start a campaign to organize junior auxiliaries in all the larger cities in the United States. I hope New Orleans will be the second city in the United States to have a junior auxiliary.

The national auxiliary now has 12,494 members. Two States are 100 per cent organized. These are New Hampshire and New Jersey.

The State Auxiliaries are doing constructive health work as well as social and philanthropic work and are making for themselves an enviable place in their respective States. Had I space I could cover many pages, but our editor even though he is most generous with space can not give us the whole Journal, so I must not go into details. Let me urge every doctor's wife in the State of Louisiana to begin now to plan to come to New Orleans in the spring to the national meeting. Also please, where there are no auxiliaries try to organize one, for Louisiana must be among the 100 per cent States when the national meeting is called to order in New Orleans in 1932.

JAMBALYA.

Monroe sends us word that at their meeting in October the nominative committee will be ap-

pointed to be followed by the election of officers at the November gathering, and it is quite certain that the good work started there will be continued.

Although the formal meeting of the Woman's Auxiliary to the Orleans Parish Medical Society will not be held until the middle of October, there have been already two informal gatherings, and extensive work is planned by the Educational Committee to inaugurate a campaign to introduce Hygeia into our public schools. This magazine is sponsored by the American Medical Association and deemed equally important by our State doctors. The standing committees for the year recently appointed by the president, Mrs. S. M. Blackshear, follow: chairman of the social group—Mrs. Ambrose Storck; chairman of philanthropy—Mrs. W. H. Seemann; chairman of education—Mrs. Ludo Von Meysenbug; chairman of courtesy—Mrs. J. Kelly Stone.

Dr. S. C. Barrow, president of the Louisiana State Medical Society, is lending his valuable assistance to auxiliary work, and with the aid of Mrs. A. A. Herold of Shreveport has organized the Fifth District in Minden. Mrs. Charles Gowen of Shreveport was elected president. Dr. Barrow has also requested, and his suggestion has been accepted, that a subscription to the New Orleans Medical and Surgical Journal be sent to each president of the various auxiliary groups. Our thanks are given to the Journal Committee for their courtesy in this matter. The Seventh District has been more or less organized by Dr. Barrow, but Mrs. Herold will do follow-up work in the fall to perfect it. It scarcely seems necessary to thank Dr. Barrow for his hearty, generous cooperation in auxiliary work—but we do—just the same.

We will have as guests at the Southern Medical Association in November in New Orleans, Mrs. A. B. McGlothlan of St. Joseph, Missouri, president of the American Medical Association Auxiliary, also Mrs. Walter J. Freeman of Philadelphia, Pennsylvania, the incoming president. Our hearty welcome is extended to these distinguished guests.

It has been definitely decided that the Louisiana State Medical Society Convention will be held in New Orleans the day prior to the American Medical Association Convention.

M. H. Musser,
State Publicity Chairman.

MISSISSIPPI STATE MEDICAL ASSOCIATION NEWS

L. S. Lippincott, Editor

Jacob S. Ullman, Associate Editor

D. W. Jones, Associate Editor

THAT WE MAY KNOW EACH OTHER BETTER.

Dr. Charles Clifton Buchanan is a native of Mississippi. He was born August 22, 1887. After graduating from high school he attended the University of Mississippi and graduated from Tulane

University Medical Department in 1909. He practiced medicine in Mississippi until 1916 when he moved to Houston, Texas. Dr. Buchanan was commissioned a medical officer in the United States Army in 1917, and served during the world war, ten months of his service being in France. After discharge from the Army he spent ten months in post graduate work in the Eye, Ear, Nose and Throat Hospital in New Orleans and then located in Hattiesburg. Since that time his practice has been limited to diseases of the eye, ear, nose and throat.

Dr. Buchanan is a past President of the Kiwanis Club of Hattiesburg, a past president of the South Mississippi Medical Society and a fellow of the American Medical Association. He is a thirty-second degree Mason and a Shriner.

He is a member of the Presbyterian Church.



CHARLES CLIFTON BUCHANAN, M. D.
Hattiesburg, Mississippi.
Vice-President, Mississippi State Medical Assn.

October 7: Staff of Chamberlain-Rice Hospital, Natchez; Staff of Vicksburg Infirmary, 7:30 p. m.; Staff of Rush's Infirmary, Meridian, 7 p. m.; Staff of Dr. F. G. Riley's Children and Maternity Hospital and Clinic, Meridian, 7 p. m.

October 8: Staff of Vicksburg Hospital, 7:30 p. m.

October 9: Staff of Anderson Infirmary, Meridian, 7 P. M.

October 10: Staff of Vicksburg Sanitarium, 6:30 p. m.

October 13: Issaquena - Sharkey - Warren Counties Medical Society, Y. M. C. A., Vicksburg, 7 p. m.; Staff of Natchez Sanatorium, 7 p. m.; Winston County Medical Fraternity, Louisville.

October 15: Staff of King's Daughter's Hospital, Greenville, 7 p. m.; Delta Medical Society, Moorhead, 2 p. m.

October 15: East Mississippi Medical Society.

October 16: Natchez Medical Club, 1 p. m.

October 20: Staff of Natchez Charity Hospital, 8 p. m.

October 29: Joint Meeting of North Mississippi and North East Mississippi Thirteen

Counties Medical Societies, University Chapel Building, 10:30 a. m.

CALENDAR.

October 1: Pike County Medical Society, McComb, 7:30 p. m.

October 2: Natchez Medical Club, 1 p. m.

October 5: Staff of Jackson County Hospital, 7:30 p. m.; DeSoto County Medical Society, Hernando, 10 a. m.; Staff of Meridian Sanatorium, 7 p. m.

October 6: Homochitto Valley Medical Society, Natchez, 1 p. m.; Staff of King's Daughters' Hospital, Brookhaven, 7:30 p. m.; Annual Meeting of 8th Councilor District, Natchez.

AN EDITOR TALKS.

In the Annals of Otology, Rhinology and Laryngology for March, 1930, Dr. George L. Richards of Fall River, Mass., the Editor for 16 years, presents some interesting observations under the title, "The Preparation of Papers on Medical Subjects: How to make them Interesting as well as Instructive—The Editor Talks." Those of us who try to read the many medical journals that come to our desks, will say, "Hear, Hear, may medical writers take notice." Those of us who occasionally try to present a paper before our Societies or for publi-

education will find many excellent and wise words of advice from one who knows.

By his permission, below and in the next month or two, we shall give you some of the words of wisdom from this gifted Editor and may we say, words with which we heartily agree. He says in part:

"At the outset I wish to define what I mean by the word interesting. An interesting paper on a medical subject is one that holds the hearer or the reader, as the case may be, until the end of the article. The world instructive needs no definition.

"For about sixteen years I have been your editor, and have prepared the papers from annual meetings and section meetings for publication. This has necessitated the reading of all manuscripts before publication and the twice reading of all proof as well as much correspondence.

"As a result of these years of experience, I wish to present to you some conclusions to which I have come, and to offer some suggestions which if followed will make our papers and our Proceedings more interesting and just as instructive.

"Medical literature at its best is not particularly exciting, whether presented by the human voice or through the medium of the printed page, and I am not the only person who has taken refuge in sleep during the presentation of a paper somewhat overlong and a bit prosy.

"The amount of medical literature is now so vast that even the specialist in any one department finds it impossible to cope with it. He desires to keep up with medical progress, and when his journals and reviews arrive turns to those subjects which interest him. If the article is short he quickly reads it; if it is long he either turns to the end, hoping the author has summarized his conclusions, or lays it down on his desk, thinking he will read it another day when he has more leisure. By night it is probably covered by some other journal or piece of literature and the next day is covered still deeper.

"In a few days another journal has arrived, and in the end the article never is read, even though the subject was an appealing one and by someone whose views would have commanded respect. Even the reprints which we mean to read are not read. Most of us are very busy and out of office hours like to do something else than read long articles and many case reports. Is not this in a measure the experience of all of you?

"What is the remedy? To stop writing? Not at all, but each medical author should study the

art of condensing and should write for his particular audience. In papers to be presented before this or similar societies one should assume that the audience have some familiarity with the subject, and too much historical matter or the relating of what all the other writers on the subject have said, starting with Hippocrates, might well be omitted and also all the anatomy except what is necessary to make clear the points of the paper.

"At the beginning assume the audience have some knowledge of the subject, state clearly the point you are wanting to make and stop when you are through, after having briefly summarized.

"Spell the same name the same way always and do not capitalize medicines, diseases and the like, unless they bear the name of the originator. Rules as to capitals vary somewhat. It is my habit to follow the custom of the American Medical Association as to these.

"Before sending the manuscript to editor or printer read over carefully for grammar, capitals, spelling and clearness of statement.

"Always read the manuscript carefully for typewriter errors. These naturally occur, but they have to be found by the editor, who cannot depend on their being found and corrected by the printer, especially when technical matter is being set up, the meaning of which may not be clear to him. If many corrections are necessary rewrite the page.

"After the paper is written go over it and eliminate every unnecessary sentence and see that it reads smoothly. Then read it out loud to your secretary and see if you can hold her interest during the reading. This will be a fair test of how the audience will receive it."

(To be continued)

FROM OUR PRESIDENT.

"Enclosed you will find an extract from a report of the committee on Medicolegal Problems of the American Medical Association.

"While the State of Mississippi, in my opinion, is not at this time in such a position financially to take up this important work, yet I do believe that it would be a very good idea to put the matter before the physicians of the state so that they will be kept informed as to what the American Medical Association is trying to do. It is my purpose also to have this report printed in the daily papers in order to bring the matter before the laymen. If you can use this in your Journal I would appreciate it very much."

John C. Culley.

EXTRACT FROM THE REPORT OF THE COMMITTEE ON MEDICOLEGAL PROBLEMS,
AMERICAN MEDICAL ASSOCIATION,
JUNE, 1931.

To the Board of Trustees:

Your Committee on Medicolegal Problems respectfully submits the following report:

CRIMINOLOGIC INSTITUTES.

The detection and punishment of crime is a major problem today throughout the entire country. Experience abroad and a limited experience in the United States have shown that science can do much to aid in accomplishing those ends. Frequently the first step in the detection of crime, the identification of the living and the dead—sometimes the identification of mutilated portions of dismembered bodies—depends on anthropometric measurements, finger-prints, evidences of age, sex, race, pre-existing diseases, and old injuries, such evidence as is discoverable only by skilled pathologists. Examinations of the dead body, by inspection and autopsy, to determine the cause and time of death, call for like services. The nature and origin of stains must be accurately determined, procedures that call for scientific technique and accuracy. Vomitus, excreta, and the contents of the intestinal tract, the various tissues and organs of the body, and various substances found in and about the place of death must be analyzed to determine the presence or absence of poisons, the nature of food and drink ingested by the deceased or the accused, and so on. Inquiries must be made into the mental states of persons from whom complaints are received and of persons under arrest or on trial, whether those mental states be due to narcotic drugs, alcohol, injuries, disease, congenital defects, or insanity. Scientific investigations are necessary in connection with charges of criminal abortion, rape and infanticide. On the borderline of medicine, studies must be made to determine what relations there are, if any, between a given projectile, powder stain, powder residue, cartridge case, and weapon, and a given wound. Somewhat farther afield are studies of disputed documents, of footprints, the tracks left by vehicles, impressions of jimmies, and marks left by the use of oxy-acetylene torches and explosives in connection with safe-cracking.

The character and extent of the equipment necessary for the several purposes named in the preceding paragraph, and the character and extent of the knowledge and skill necessary for the practical utilization of that equipment in the everyday detection of crime and the punishment of criminals, are such as now preclude their utilization

by the average community. Only the states themselves and in a few instances the larger cities within the states are able to finance such activities. Moreover, in the communities of average size or below, occasions for the utilization of many of the devices necessary for the purposes named and for the services of persons skilled in the use of those devices are so infrequent as to make the cost of operation unduly great, when compared with the units of work done.

The only logical procedure seems to be for each of the several states to provide and maintain the equipment and staff necessary for the service of all communities within its borders. The establishment of such agencies by the several states would in no way interfere with the establishment of similar agencies by such municipalities as need and can afford them. On the other hand, equipment and staff maintained by the state would be at the command of all counties, municipalities, towns and villages within its jurisdiction, as they might need them from time to time. The cost of such activities might well be borne by the state. If, however, the state should deem it advisable to impose a part of that cost on counties, municipalities, towns, and villages, a definite schedule of charges might well be established.

Such a state organization as has been outlined above would serve not only to aid directly in the detection and punishment of crime but also to serve indirectly toward that end by contributing toward the proper instruction of the peace officers and agencies of the state, and of every county, municipality, town, and village, in methods for the investigation of crimes and suspected crimes. Such officers and agents would be taught how best to collect and preserve such evidence as the circumstances afford and how to avoid destroying or marring essential evidence. State agencies of the type named might well have connected with them experts qualified to keep accurate records of crime and crime prevention, so as to measure the success or failure of activities for those ends.

Organizations such as have been described have been variously dubbed medicolegal institutes, criminologic institutes, and scientific crime detection laboratories. The name seems hardly material, although the name last stated is hardly broad enough to cover the true functions of such organizations.

It seems to your committee that action to promote the establishment of such organizations in each of the several states would be in the interest of good government. Your committee recommends, therefore, that it be authorized to take action toward that end, working in conjunction

with and through the Bureau of Legal Medicine and Legislation.

H. Douglas Singer
Winfred Overholser
William C. Woodward
Ludvig Hektoen
William J. Stapleton, Jr.

Approved by the Board of Trustees, June 7, 1931.

TATE COUNTY.

Sorry not to have had anything to report for some months past, but our medical society has been inactive for some months and we have no hospitals, clinics or other things of interest. Another month can give number of vaccinations in county for typhoid and smallpox as we are still doing lots of that.

I am enclosing a card giving program for a public meeting of our Society, gotten out by Dr. W. D. Smith, who is acting Secretary for the present time, as I was advised by Dr. Dye to withdraw from State and County Associations for the time in order to try to get my group insurance corrected. But seems that I have not gained anything as the insurance company has every advantage and are taking it. And what they are offering is worthless or practically so. It is bad that after so many members got into this company that they have to give up their policies, for will never be able to interest them in such insurance again.

A clinic for pre-school children was recently held at the grammar school. Examinations were made by four of the leading specialists of Memphis, assisted by local physicians. This commendable work was sponsored by the Tate County Medical Society co-operating with the Parent-Teachers Association.

J. Sidney Eason.

TATE COUNTY MEDICAL SOCIETY.

The Tate County Medical Society and the Senatobia Parent-Teachers Association held a joint meeting at Senatobia high school auditorium, Wednesday, August 26, at 8 p. m. The program included:

The Pre-School Child.—Dr. Rudolph McCormick.

Early Signs and Symptoms of Appendicitis.—Dr. Ernest Irby.

Suggestive Signs and Symptoms of Tonsils and Sinuses.—Dr. Charles Blassingame.

Necrosis; A Few Case Reports.—Dr. Ervin Boyles.

All of the above physicians are of Memphis, Tennessee.

W. D. Smith, Secretary, Pro tem.

WORLD WAR RECORDS.

Since the Association saw fit to remit the dues of all members who served in the World War, during their service, and considered that this service deserved special mention in our records, it is but fitting that the "Roll of Honor" that appeared in the TRANSACTIONS of 1918, a list of the members in service, should be included in the History.

But if it is included, it should be accurate as far as possible.

The list in the 1918 TRANSACTIONS contains some hundred and forty names. We know there were more than that. The service flag with which we presented ourselves in 1919 has four hundred stars. In accepting that flag Dr. Crawford, speaking for the service men, said that "those hundred and sixty-four Mississippi doctors wore the uniform." These figures are so widely at variance, even though Dr. Crawford's figures and the stars on the flag represent non-members as well as members, that some adjustment must be made.

The surgeons-general of the Army and Navy were asked for the names of volunteers to their respective services from Mississippi.

The Army sent a list of three hundred and eighty-nine of whom, according to our records, two hundred and fourteen were members. The Navy list was much smaller, seventeen, of whom only five were members. But already we find possible inaccuracies. The names of two who were in service, Drs. K. T. Klein of Meridian and H. R. Carr, formerly of Water Valley, and now Superintendent of the Shelby County Hospital in Memphis, are not on the Army roll. Clerical errors will happen. Quite possibly there are others. We are doing all we can to get a correct list. If the members of the Association will read it over, perhaps they may find other omissions and we will be very grateful for any help they may give us.

E. F. Howard, Historian.

MISSISSIPPI DOCTORS WHO SERVED IN THE
U. S. NAVY DURING THE WORLD WAR
WHO WERE MEMBERS OF THE
ASSOCIATION.

Arnold, H. L., Meridian; Bennett, J. T., Meridian; Foster, R. H., Meridian; McLain, J. H., Jackson; McMorries E. D., Meridian.

MISSISSIPPI DOCTORS WHO SERVED WITH
THE ARMY DURING THE WORLD WAR,
WHO WERE MEMBERS OF THE
MEDICAL ASSOCIATION.

Abernethy, E. G., Algonia; Acker, J. M., Jr., Aberdeen; Alexander, C. D., Vaiden; Alexander, M. J., Tunica; Allen, M., Summit; Allred, W. W., Kiln; Applewhite, R. E., Magnolia; Armstrong, J. C., Water Valley; Arrington, O. N., Brookhaven; Ash, G. G., Lexington; Austin, O. O., Harpersville; Austin, R. B., Knoxo; Aycock, W. J., Hohenlinden; Backstrom, J. G., Tutwiler; Bailey, J. T., Meridian; Barksdale, J. W., Winona; Baskerville, G., Winona; Bean, V. H., Smithville; Bell, C. G., Canton; Bethea, W. R., Hattiesburg; Blount, W. N., Collins; Booth, B. H., Drew; Boswell, H. P., New Albany; Bourdeaux, T. D., Meridian; Boyd, R. M., Aberdeen; Brandon, J. W., Money; Brevard, L. H., Hernando; Brevard, S. A. Arkabutta; Bridges, M. E., Bobo; Britt, W. L., Jackson; Brock, D. T., McComb; Browne, H. L., Kosciusko; Browne, P. L., Grenada; Bryan, A. C., Sumrall; Burchfield, B. E., Ruleville; Burnham, H. M., Moss Point; Burns, E. P., Ratliff; Bush, T. J., Clarksdale; Butler, R. M., Jackson; Byrd, W. G., Isola; Carr, I. P., Clarksdale; Carruth, R. W., Chesterville; Carruthers, S. S., Duck Hill; Chamberlain, C. T., Natchez; Champenois, F., Hattiesburg; Chester, A. D., Cruger; Cleveland, T. G., Meridian; Coley, S. W., Reid; Cooper, I. W., Jr., Newton; Cox, J. W., Columbus; Cranford, W. S., Meridian; Crawford, W. W., Hattiesburg; Crisler, J., Jackson; Crothers, V. M., Lambert; Cuming, H. T., Gloster; Dameron, J. H., Meridian; Denson, E. G., Meridian; Denson, G. C., Oakvale; Dicks, J. W. D., Natchez; Diggs, G. W., Black Hawk; Dobson, W. B., Jackson; Donald, R. M., Hattiesburg; Douglas, G. F., Meridian; Edwards, C. J., Vicksburg; Elmore, R. C., Durant; Ervin W. L., Columbus; Ewing, J. S., Vicksburg; Fleming, T. Y., Minter City; Fountain, J. Q., Bay St. Louis; Fox, J. H., Jackson; Franks, V. D., Hinchliff; Fridge, H. G., Sanford; Furr, J. E., Berlen; Gamble, P. G., Greenville; Garner, M. C., Meridian; Gastin, J. S., Laurel; Gavin, E. M., Richton; Gayden, H. D., Leland; Gibson, J. S., Crystal Springs; Gordon, E. R., McComb; Goss, F. L., Kiln; Grady, W. R., Meridian; Graves, W. R., Richton; Gray, R. E., Bude; Gray, W. P., Waynesboro; Griffin, H. E., Coffeeville; Guthrie, J. M., Meridian; Hagan, L. C., Union; Harper R. B., McBride; Harrelson, A.

M., Newton; Harris, J. A., Webb; Harris, W. R., Houlika; Hart, L., Meridian; Hays, H. R., North Carrollton; Hentz, R. P., Itta Bena; Hewitt, B. J., McComb; Hightower, C. C., Hattiesburg; Hirsch, J. B., Greenville; Hollis, F. K., Gattman; Holmes, T. W., Winona; Honnoll, R. E., Rienzi; Hood, B. S., Bond; Hopper, H. P., Saucier; Houston, T. J., Meridian; Howard, E. F., Vicksburg; Hudson, L. B., Hattiesburg; Jackson, J. S. Belzoni; James, J., Ackerman; Johnson, B. F., Hazlehurst; Johnson, G. E., Hudsonville; Johnson, H. G., Dundee; Johnson, J. H., Brookhaven; Johnson, H., Biloxi; Jones, O. O., Booneville; Kennedy, J. P., Greenwood; Kitchens, L. W., Strayhorn; Kittrell, J. R., Laurel; Lanning, J. R., Corinth; Lehmgberg, C. E., Columbus; Lofton, A. C., Ollie; Magee, D. W., Caseyville; Magee, J. B., Prentiss; Marshall, B. J., A. & M. College; Martin, L. H., Hattiesburg; McCalip, W. D., Yazoo City; McDevitt, J. A., Shubuta; McIntosh, J. S., Mount Olive; McKee, C. R., Wesson; McKinley, W. R., Columbus; McKinnon, H. L., Hattiesburg; McLean, E. R., Cleveland; McLeod, N. A., Brookhaven; McNair, J. C., Fayette; McNeal, A. W., Ruleville; McWilliams, C. A., Biloxi; Merritt, W. M., Boyle; Miller, C. R., Priscilla; Miller, H. R., Lamont; Montgomery, D. C., Greenville; Montgomery, G. W., Louin; Moore, D. R., Cockrum; Mosby, C. P., Meridian; Mullins, C. E., Natchez; Neal, L. B., Jackson; Neal, S. F., Marks; Newell, S. D., Indianola; Nichols, J. L., Alligator; Nichols, V. N., Carson; Nobles, E. R., Rosedale; Noel, H. L., Lexington; Norwood, C. W., Paden; O'Cain, E. C., Winona; Odeneal, E. P., Biloxi; Oliver, H. B., Sledge; Parker, E. C., Gulfport; Parkes, J. L., Batesville; Pearce, R. S., Falkner; Pegram, R. H., Potts Camp; Pittman, C. J., Ruleville; Polk, P. R., Oakvale; Pool, W. C., Issaquena; Powell, J. E., Clinton; Primrose, J. W., Clarksdale; Rainer, J. T., Louise; Rawles, E. L., Sherard; Reid, J. S., Lamkin; Rembert, G. W. F., Jackson; Reynolds, J. M., Shubuta; Richards, W. E., Columbus; Riley, F. G., Booneville; Robinson, B. T., New Augusta; Robinson, J. C., Noxapater; Royals, T. E., Meridian; Rush, B. C., Bay St. Louis; Sayle, D. T., Torrance; Scarborough, J. F., Laurel; Scott, W. W., Erwin; Seay, T. H., Laurel; Shivers, E. E., Boyle; Simmons, J. D., Gunnison; Slack, J. A., Friars Point; Smith, D. S., Rodney; Sparkman, A. A., Cleveland; Speck, C. M., New Albany; Smith, J. D., Laurel; Smith, T. J., Meridian; Spivey, G. H., Hollandale; Sproles, H. F., Vicksburg; Steen, J. H., Vaughan; Stephenson, R. M., Lexington; Stewart, N., Jackson; Storm, G. R., Phillip; Strain, T. A., Meridian; Street, A., Vicksburg; Strong, R. A., Pass Christian; Tackett, J. R., Meridian; Toomer, W. A., Tupelo; Touchstone, A. G., Moss Point; Trotter A. G., Greenwood; Ullman, J. S., Natchez; Waldrop, H. G., Bethany; Wall, J. P., Jackson; Wallace, J. E., Biloxi; Walley, D.,

Richton; Warren, G. T., Brookhaven; Wells, S. T., Alligator; Westmoreland, J. D., Taylor; White, J. C., Jr., Hazlehurst; Wicks, A. F., Okolona; Wiggins, J. T., Merigold; Wilson, E. P., Houston; Wilson, J. W., Wanilla; Wilson, J. J. Coldwater; Woodward, J. I. Picayune.

HOMOCHITTO VALLEY MEDICAL SOCIETY.

Attention is called to the members of the Homochitto Valley Medical Society, and for that matter all medical societies in Mississippi, that the annual dues must be paid by January 1, 1932, as all secretaries are required to turn in their reports on February 1, to the State Association. This is urged upon the members, especially in suits of malpractice, as the State Association will only recognize applications for protection provided dues are paid.

The Homochitto Valley Medical Society will hold its regular quarterly meeting on Thursday, October 8, in Natchez, at 2 p. m., for the election of officers for the ensuing year.

Lucien S. Gaudet, President.

EIGHTH COUNCILOR DISTRICT.

The Eighth Councilor District Medical Meeting will be held in Natchez, Tuesday, October 6, on the Roof Garden of the Eola Hotel, with the following program beginning at noon:

1. Dinner.
2. Address.—Dr. J. W. D. Dicks, Natchez, Councilor, Eighth District.
3. The Community Hospital.—Dr. J. C. Culley, Oxford, President, Mississippi State Medical Association.
4. Medical Education in Mississippi.—Dr. P. L. Mull, University, Dean, University of Mississippi Medical School.
5. The Surgical Significance of Splenomegaly.—Dr. Isadore Cohn, New Orleans, Louisiana.
6. Constitutional Symptoms of Gynecological Origin and Treatment of Causative Conditions.—Dr. T. B. Sellers, New Orleans, Louisiana.
7. A Case of Bow-Legs (Moving Pictures).—Dr. Alphonse H. Myer, Memphis, Tennessee.

J. S. Ullman, M. D.

BOLIVAR COUNTY.

Dr. and Mrs. L. B. Austin, Rosedale, have returned from a vacation spent in Chicago.

Dr. E. R. McLean, Cleveland, one of the chief members of the Delta Medical Society and a leading physician of Cleveland, we are glad to re-

port, was recently nominated for sheriff of Bolivar County. He is now recuperating from a strenuous campaign in the I. C. Hospital in Chicago, and his friends hope to welcome him home at an early date.

The physicians and surgeons of the County are very much interested in the County Health Unit of Bolivar County. We recognize that expenses of all political organizations must be cut, but are endeavoring to prevent such a drastic cut as would hurt the efficiency of the organization. Every citizen of the County is interested and we hope to secure sufficient funds to at least keep the unit properly functioning.

The King's Daughters' Hospital at Rosedale has been crowded to more than capacity for the past month. Two beds were in most of the rooms and cots were placed in the halls. Of course, charity patients predominated, but all were well and efficiently cared for.

The doctors of the county all have sent expressions of sympathy to Dr. C. W. Patterson over the death of his mother, which occurred at Port Gibson, on August 12 last. She was 82 years of age and a sweet mother now in Heaven. Dr. Patterson expresses his gratitude for the many expressions of sympathy and good wishes of his friends.

C. W. Patterson, County Editor.

JACKSON COUNTY.

No vacations by any of our members, Mr. Editor, except our County Health Officer, Dr. R. G. Lander, who visited his brother, Dr. Ed. Lander of Victoria, Texas, and went fishing. Leaving the Mississippi Gulf Coast to fish in Texas! What do you think of that?

The regular meeting of the Jackson County Medical Society was held at the Jackson County Hospital on Sept. 7, at 7:30 p. m., and Dr. J. H. Baumhour of Mobile, Ala., read a paper on "Food Allergy in Children," which was enjoyed by all present.

Analysis sheets submitted from time to time show that the amount of work done at the Jackson County Hospital is greatly in excess of what was anticipated in this length of time when it was opened Feb. 1, 1931.

Your correspondent from Holmes County, claiming the first county owned hospital, is mistaken, as Jackson County was the first county to get authority from the Legislature to own and operate a hospital and was also the first to open.

S. B. McIlwain, County Editor.

HINDS COUNTY.

The Central Medical Society met at the Edwards House at 7:30 p. m., Sept. 15, after a vacation of two months. The first half hour was devoted to clinics, after which the following program was presented:

Surgery in Diabetes.—Dr. M. Brister Ware.

Complications of Malaria.—Dr. Levi B. McCarty.

Angina Pectoris.—Dr. T. E. Wilson.

The Handling of Cardiac Cases in Private Practice.—Dr. O. G. Eubanks.

Refreshments were served.

Since our last report, two new doctors have located in Jackson. Dr. W. G. Berry, who formerly practiced general medicine at Cruger, has opened an office in the Standard Life Building, giving special attention to electro-therapy and roentgen-ray. Dr. J. M. Townsend, who formerly practiced general medicine at Morton, has opened an office in the Standard Life Building, and will devote his time to general practice and genito-urinary and kidney diseases.

Dr. W. L. Hughes, secretary of the Central Medical Society, is at the Sanitarium, taking a rest-course. Dr. R. W. Hall is acting secretary in his place.

Most of our doctors who have been on vacations have returned, and the regular staff meetings of the different hospitals will now be resumed.

D. W. Jones, M. D.

A WARNING.

THE BANK OF NEW ALBANY,
New Albany, Mississippi

Sugar 26, 1931.

Dr. T. M. Dye,
Clarksdale, Mississippi.

Dear Dr. Dye:

I understand that you are Secretary of the Mississippi State Medical Association and as a warning, I give you the following:

A party is forging checks on Dr. H. N. Mayes of this city, writing all the checks for \$15.00 each. When he goes to a town or city he seems to get in communication with a doctor or drug store and has them to either endorse or cash the checks. He claims to own a small Hospital in New Albany and that he has run short of funds while doing some work in the territory where the check is cashed.

The first check was endorsed by Dr. Thad Cothern at Jonesboro, Arkansas. A day or two later he managed to get two checks of the same amount cashed at Little Rock and on Friday the 21st one for the same amount at Baton Rouge, Louisiana.

I thought you might get this information to the Medical Association, advising all the doctors to be on the lookout for him.

Very truly yours,

(Signed) J. L. Spence, Cashier.

ISSAQUENA COUNTY.

Dr. T. A. Heath of Shiloh, dean and patriarch of the medical profession in Issaquena, who has been a constant sufferer from chronic articular rheumatism of the knee for several years, is better of the trouble just now.

Dr. J. B. Benton of Valley Park, master politician of Issaquena doctors, has made several trips to Vicksburg of late to perfect himself in that difficult art.

Dr. T. W. Huey, of Grace, always quiet and affable, stays at home, steadily sawing wood, and coining the elusive dollars, while others are gallivanting around having a good time.

Dr. W. H. Scudder of Mayersville, another spiring politician, collected a small fee last week and immediately blew it in on a trip to Memphis on Labor Day. He very wisely bought a round trip ticket, or he might not have gotten back yet.

W. H. Scudder, County Editor.

WOMEN'S AUXILIARY.

The Women's Auxiliary of the Issaquena-Sharkey-Warren Counties Medical Society met at the Carnegie Library in Vicksburg, Tuesday, Sept. 15. Those present were Mrs. E. F. Howard, president; Mrs. E. H. Jones, secretary; Mrs. W. C. Pool, Mrs. B. B. Martin, Mrs. P. S. Herring, Mrs. J. S. Ewing, Mrs. A. Street, Mrs. L. S. Lippincott, Mrs. M. H. Bell and Mrs. W. H. Parsons.

The Constitution and By-Laws, presented at the last meeting, were read by sections and set for final adoption at the October meeting.

Mrs. Bell made an interesting report of the proposed work of the Anti-tuberculosis Association, for which she is the Warren County president. She presented plans for the care of incurable cases that cannot be admitted to the Sanatorium and a committee was appointed to study them.

Mrs. Martin reported on the entertainment recently given to the nurses of the city and read some votes of thanks from the several organizations.

In the absence of Mrs. C. J. Edwards, chairman of the clean-up week, Mrs. Bell reported that the committee had cooperated with those of the other organizations taking part in this activity.

Due to the absence of Mrs. Jack Birchett, there was no report from the committee on Hygeia.

Mrs. A. Street, a committee to purchase garments for the Red Cross, presented a letter of thanks from that organization.

The secretary presented a letter from Dr. Lipincott, secretary of the Issaquena-Sharkey-Warren Counties Medical Society, thanking the Auxiliary for serving the supper at the July meeting of the organization.

Mrs. George Street made an interesting report on the meeting of the Auxiliary of the American Medical Association at Philadelphia in June.

On invitation of Mrs. Pool, representing the Sharkey County members, the Auxiliary decided to hold its next meeting, Oct. 20, at the residence of Mrs. H. S. Goodman at Cary.

It was reported that the Auxiliary had contributed \$2500 to the preventorium fund for the Sanatorium.

Mrs. E. H. Jones, Secretary.

NORTH MISSISSIPPI MEDICAL SOCIETY.

The next meeting of the North Mississippi Medical Society will be held at the University, Thursday, Oct. 29. This will be a joint meeting of the North Mississippi Thirteen County Medical Society and all of the doctors of North Mississippi as well as any others of the State are cordially invited to attend this meeting.

The purpose of this union meeting is to give the doctors of this section of the State an opportunity to visit the University of Mississippi Medical School and to see the numerous fine buildings that have been completed recently. The new hospital is almost completed and will be a point of interest for the doctors.

Several noted men from out of the State are expected to be on the program, among them Dr. W. S. Leathers, former dean of the University Medical School.

We are planning a big time and are expecting all of the doctors and their wives to meet with us at 10:30 a. m., Thursday, Oct. 29, at University, Mississippi, Chapel building.

A. H. Little, Secretary.

NORTHEAST MISSISSIPPI THIRTEEN COUNTY MEDICAL SOCIETY.

The regular quarterly meeting of the Northeast Mississippi Thirteen County, Medical Society was held at the Gilmer Hotel, Columbus, on Tuesday, September 15, beginning at 2 p. m. The program included the following:

1. Meeting Called to Order.—Dr. C. E. Boyd, President.

2. Invocation.—Dr. T. B. Bateman, First Presbyterian Church.

3. Reading and Adoption of Minutes of Last Session.

4. Ureteral Strictures, Symptoms, Diagnosis and Treatment.—Dr. L. C. Feemster, Jr.

Discussion opened by Drs. Morris and Philpot.

5. Function of the Falcia Tonsil.—Dr. D. W. Hamrick.

Discussion opened by Drs. Dickson and Dodson.

6. Tuberculosis of Infancy and Childhood with Reference to Early Diagnosis and Tuberculin Reaction.—Dr. S. P. Wainwright, Birmingham.

7. The Business Side of Medicine.—Dr. B. C. Tubb.

Discussion opened by Drs. G. S. Bryan and J. W. Lipscomb.

8. Business Session.

A banquet was served at the Gilmer Hotel at 6 p. m. J. M. Acker, Jr., Secretary.

EAST MISSISSIPPI MEDICAL SOCIETY.

The East Mississippi Medical Society met at the Elks Club, Meridian, Thursday, October 8, at 3 p. m. The following program was rendered:

1. Address.—Dr. F. J. Underwood, Executive Officer, Mississippi State Board of Health.

2. Pneumonia.—Dr. P. E. Holliday.

3. Sodium Amytal.—Dr. K. T. Klein.

T. L. Bennett, Secretary.

PONTOTOC COUNTY.

News is very scarce now, except we are having quite an epidemic of diphtheria scattered around over the country.

The Northeast Mississippi Thirteen County Medical Society met at the Gilmer Hotel, Columbus, on Tuesday, September 15.

R. P. Donaldson, County Editor.

TISHOMINGO COUNTY.

Dr. A. E. Bostick, after having practiced for many years at Golden in the extreme southern portion of Tishomingo County, has moved to Iuka, the county seat, where he will have greater opportunity of doing good. We congratulate the people of Iuka and community.

Edith Esther, daughter of Dr. and Mrs. K. F. McRae, Belmont, was married at the home of her parents on August 9, to Mr. John Spurgeon Bishop of Clarksdale. After a motor trip through the mountains of East Tennessee and points of interest in Georgia, they returned to Clarksdale, where Mr. Bishop is connected with the Bank of Clarksdale.

K. F. McRae, County Editor.

ADAMS COUNTY.

Dr. G. H. Butler, who for the past year or more has been assistant superintendent of the Natchez Charity Hospital, has resigned and is succeeded by Dr. B. J. Whittington, from Baroness Erlanger Hospital, Chattanooga, Tennessee.

Miss Wilhemina Howell, technician at the Natchez Charity Hospital, has resigned to accept a position in Laurel. Mr. Fred Geisenberger, a student at L. S. U. and Washington University, will succeed Miss Howell as superintendent of the laboratory.

Mrs. Ethel B. Marsh, public health nurse of Adams County, is spending her vacation as guest of the Carter Hunting Club in Alexandria, Louisiana. Mrs. Marsh will leave about the middle of September for Cleveland, Ohio, where she will take some work in public health nursing at Western Reserve University. She was awarded a scholarship by the Commonwealth Fund of New York.

Mr. George Dicks, son of Dr. J. W. D. Dicks, and Mr. Lee Sessions, son of Dr. R. D. Sessions, have returned from Baton Rouge, Louisiana, where they attended the summer session of L. S. U. Mr. Dicks will leave later in the fall to attend Vanderbilt University and Mr. Sessions will resume his studies at L. S. U.

Dr. L. C. O'Ferrall returned recently from Covington, Louisiana, where he motored for a visit through the week end with members of his family, who are spending the greater part of the heated term in Covington.

Dr. J. D. Shields is expressing his thanks and appreciation to the voters of the county for honoring him with election as representative for the district outside the city of Natchez. He has promised his honest endeavors and to give the best that is in him.

Dr. L. B. McLaurin recently spent a few days in Jackson, where he was joined by his daughter, Miss Lillian McLaurin, on her return from a stay of two months at Camp Nakanawa at Mayland, Tennessee. Miss McLaurin accompanied her father back to Natchez.

Dr. and Mrs. J. W. Chisolm had as their guests for several days recently Mrs. Chisolm's brother, Mr. T. H. Montgomery of Tallulah, Louisiana.

Dr. and Mrs. Marcus Beekman have had as their house guest Mrs. Beekman's brother, Mr. Stephen Triche of New Orleans.

Miss Myra Smith of Chicago is making her annual visit at Devereaux with her brother and sister-in-law, Dr. and Mrs. Raymond Smith.

Miss Lillian Hornsby, who recently graduated from the Natchez Sanatorium, is now making her home with her aunt, Mrs. Joseph Kaiser.

Mrs. Daniel Scharff of Charlotte, N. C., is visiting her parents, Dr. and Mrs. Philip Beekman. Mr. Scharff accompanied his wife to Natchez from New Orleans where they had been visiting with his parents, Mr. and Mrs. I. D. Scharff, but remained for a stay of only a few days.

An interesting event of August was the annual banquet of the Adams County Registered Nurses Association, which was held in the private dining room of White's restaurant. A business meeting and election of officers preceded the banquet. Twenty members of the Association attended the affair.

On August 12, a surprise shower and bunco party was given by the nurses of the Natchez Sanatorium complimentary to Miss Lola Seals who was recently married to Captain Thomas Radigan. The spacious living room of the Nurses' Home in Franklin Street was the scene of the interesting gathering which included twenty or more of the friends of the honoree.

L. Wallin, County Editor.

MADISON COUNTY.

I didn't get a letter to you last month as I was on a trip to the Mayo Clinic, Chicago, and Memphis with Dr. M. L. Flynt of Newton, and his two boys, Mayo and M. L. Flynt, Jr. We had a very pleasant and instructive trip.

Miss Juanita Russell of the King's Daughters' Hospital staff at Canton, is home on a vacation following an operation for gall stones. She is recovering nicely.

Dr. John B. Howell, Canton, is back at work and in good health again following a gallbladder operation.

A. P. Durfey, County Editor.

BAPTIST HOSPITAL, JACKSON.

Dr. T. J. Crofford, Lampton Building, Jackson, is the editor in chief of the Baptist Hospital Staff. Harvey F. Garrison, M. D.

HOUSTON HOSPITAL.

The regular monthly staff meeting was held at the Houston Hospital, Thursday evening, August 27, at 8 o'clock.

The meeting was called to order by the Chairman, Dr. W. J. Aycock, Derma. Dr. E. L. Richardson read a very interesting paper on "Acidosis," which was followed by a general discussion from all the doctors present.

The medical discussion was followed by a musical program, rendered by Misses Harris, Atkinson, Turner and Patterson of Houlika.

Light refreshments were served by the student nurses, after which the meeting adjourned to meet again the last Thursday night in September.

V. B. Philpot, M. D.

YAZOO COUNTY.

We are all deeply grieved to hear of the death of Dr. Smithson.

No news with the Yazoo doctors. Dr. Roberts met a mule in the road; mule kept road; auto and doctor turned over; doctor broken rib. Am glad to say he was next day, I mean the doctor.

C. M. Coker, County Editor.

DR. W. W. SMITHSON.

Dr. W. W. Smithson, Jackson, former State Health Officer, died at Jackson, September 9, 1931, of carcinoma of the stomach and liver, at 57 years of age.

Dr. Smithson was a native of Thomastown, Mississippi. He received his education in the common schools of the state and graduated at the Mississippi A. and M. College before taking his medical course at what is now the University of Tennessee. He had postgraduate work at the Rush Medical College and Johns Hopkins University. He first located in Kosciusko, later removing to Durant and then to West, before settling permanently in Jackson where he quickly established himself as a successful practitioner. While at West he married Miss Meta Moore. Their one son, Claude Taylor, was born in West in 1904, two years before the family moved to Jackson.

During a comparatively short career of public professional work, Dr. Smithson served as executive secretary of the Mississippi State Board of Health, and in 1913, by appointment of Governor

Earl Brewer, became head of the Mississippi Insane hospital, a position which he held for four years.

After resuming private practice, he was connected with the old Jackson Sanatorium which later consolidated with the Jackson Infirmiry, of which Dr. Smithson was vice-president at the time of his death.

Dr. Smithson has been prominently identified with the civic, social and fraternal life of Jackson during his long residence there. He was a member of the Capitol Street Methodist church. Until ill health interfered, he was an active member of the Kiwanis Club and the Jackson Chamber of Commerce. He was a Mason, a Shriner, a member of the W. O. W., and of the Knights of Pythias. He was vice-president of the Country Club at the time of his death.

Dr. Smithson's professional connections included membership in the Central Medical Society, the Mississippi State Medical Association, and the Southern Medical Association. He was a fellow of the American Medical Association.

DEATHS OF MISSISSIPPI DOCTORS.

William Thomas Hunter, Decatur, apoplexy and hemiplegia; at Decatur, June 2, 1931. Born Mississippi, February 3, 1872.

Dr. J. H. Newcomb, secretary of the Southern Mississippi Medical Society has sent to the Journal two resolutions on the death of active members of this organization.

W. Gregg Gill, Newton; undulant fever; Aug. 20, 1931, at New Orleans, La. Born Clinton, Miss., Sept. 24, 1881.

RESOLUTIONS OF THE SOUTH MISSISSIPPI MEDICAL SOCIETY.

The South Mississippi Medical Society was shocked to learn of the untimely death of Dr. T. Gandy, one of its active members, on January 31, 1931. Dr. Gandy combined with unusual intelligence, sound judgment and extreme devotion of his patients. He possessed a most agreeable and friendly personality, which endeared him to associates and patients alike.

The Society feels his loss very keenly and, therefore

Resolves: To spread upon its minutes these sentiments of its love and respect for the departed member, and further

Resolves: To express to his widow and his children its heart-felt sympathy, and further

Resolves: That in token thereof a copy of these resolutions be forwarded to the New Orleans Medical and Surgical Journal, and another to his widow and children.

Signed:

T. E. Ross, Jr.
H. C. McLeod,
J. P. Culpepper, Jr.,
Resolutions Committee.

The South Mississippi Medical Society was grieved to hear of the untimely demise of Dr. John S. Adams, who, in His infinite wisdom, Almighty God has taken from our midst in the prime of his active life. His professional skill, enthusiasm, and lovable personal qualities endeared him to all with whom he came in contact.

The Society hereby places on record its deep regret at the loss of Dr. Adams, and therefore

Resolves: To spread upon its minutes these sentiments of its regard for the departed member, and further

Resolves: To express to his widow, his children, his mother, his brother, Dr. J. E. Adams, other members of the family and his many devoted friends, its most heart-felt sympathy, and further

Resolves: That in token thereof a copy of these resolutions be forwarded to the New Orleans Medical and Surgical Journal, another to his widow and children, another to his mother, and another to his brother, Dr. J. E. Adams.

Signed:

T. E. Ross, Jr.
H. C. McLeod,
J. P. Culpepper, Jr.,
Resolution Committee.

DESOTO COUNTY MEDICAL SOCIETY.

The Desoto County Medical Society held its annual open meeting at the Hernando School Auditorium, August 10, at 8 p. m. The public was cordially invited to attend.

The program included the following:

Invocation.—Brother C. C. Weaver.

Reading.—Miss Jessie Entrikin.

Address.—Honorable E. N. Wilroy.

Piano Selection.—Miss Eugenia Nichols.

Address.—Goitre and Other Abnormal Conditions of the Thyroid Gland.—Dr. W. C. Chaney, Memphis, Tennessee.

Announcements.—Dr. C. W. Emerson, President.

On invitation, several members of the Tate County Medical Society were present.

The program was interesting and instructive and was enjoyed by a goodly number.

The Mississippi section of the Journal is getting better each month.

L. L. Minor, Secretary.

RUSH'S INFIRMARY, MERIDIAN.

The regular staff meeting was held at Rush's Infirmary, Meridian, on September 3, at 7 p. m. The program was as follows:

1. Motion Picture (3 reels)—Treatment of Infections of the Hand.—Dr. Allen B. Kanavel, Chicago.

Dr. Kanavel covered the condition in a most practical manner, demonstrating thoroughly the surgical anatomy of the hand and forearm, diagnosis, the regions affected by infections, the proper incisions for drainage of abscesses, the dangers of improper handling, treatment of infections of the hand, after treatment, physiotherapy and restoration of function.

2. Infections:

Tetanus and its Treatment.—Dr. D. L. Walker.

Erysipelas and its Treatment.—Dr. E. B. Key.

Gas Bacillus Infection and its Treatment.—Dr. H. Lowry Rush.

3. Case Reports:

Perforated Wounds.—Dr. Leslie V. Rush.

Stab Wound of Neck. Pyogenic Infection. Portion of Knife Blade Removed from Laminae of Third Cervical Vertebra two Weeks after Injury.

Traumatic Aneurysm of Femoral Artery from Bullet Wound. Treated by Ligation of the External Iliac Artery.

Perforated Wounds.—Dr. H. Lowry Rush.

Knife Wound of Shoulder With Gas Gangrene and Pyogenic Infection. Severe Secondary Hemorrhage Three Weeks After Injury.

Stab Wounds of Abdomen with Laceration of the Liver.

4. Large Stone of the Kidney Pelvis Which Was Passed 18 Months after Discovery.—Dr. D. L. Walker.

Dr. Julian T. Bailey is President of the Staff and Dr. T. L. Bennett, Secretary.

LAUDERDALE COUNTY.

Dr. T. D. Bourdeaux is slowly improving at his home, 2423 23rd Avenue, Meridian, after an operation performed at Dallas, Texas.

There were present at the staff meeting of Rush's Infirmary 34 physicians. Refreshments served!

The East Mississippi Medical Society sustained a great loss in the death of Dr. W. G. Gill of Newton very recently. Flowers were sent and funeral attended by several doctors from Meridian and elsewhere.

Dr. T. J. Googe, Superintendent of the Commonwealth Health Fund in Lauderdale County, has moved into commodious quarters at 25th Avenue, between 9th and 10th Streets.

Charles T. Burt, County Editor.

WARREN COUNTY.

Dr. M. H. Bell is back in his office after having enjoyed a two months' vacation.

Dr. W. E. Akin has enjoyed a week's vacation, visiting in Yazoo City and Allison Wells.

Dr. I. C. Knox is out of the city on his vacation. He expects to spend some time in the clinics at Nashville, Tennessee, and also to visit relatives.

Dr. Charles J. Edwards has recovered from an operation for osteomyelitis of the left tibia and has returned to his office.

Edley H. Jones, County Editor.

VICKSBURG HOSPITAL.

A meeting of the staff of the Vicksburg Hospital was held on August 13, at 7 p. m.

The meeting was called to order by the President, Dr. G. P. Sanderson, with Drs. I. C. Knox, W. H. Parsons, W. G. Weston, H. W. Weimar, and W. E. Akin present. The program included:

1. Minutes of the preceding meeting read and adopted without change.

2. Analysis of the work done in the hospital during the past month, roentgen-ray report, laboratory report, medical and surgical reports discussed freely.

3. Scientific program presented as outlined. There was free discussion.

4. The question of the filing system of cases according to etiological classification is to be discussed at the next staff meeting.

5. Refreshments were served and meeting adjourned.

Edley H. Jones, Secretary.

ISSAQUENA-SHARKEY-WARREN COUNTIES MEDICAL SOCIETY.

The regular monthly meeting of the Issaquena-Sharkey-Warren Counties Medical Society was held on September 8, at the Y. M. C. A., Vicksburg. The scientific program included:

1. Malaria Prevention.—Dr. J. E. Quidor, Vicksburg.

Discussed by Drs. J. A. K. Birchett, Jr., G. W. Gaines, and G. M. Street. Dr. Quidor closed.

2. The Scope of Allergy.—Case Report.—Dr. Edley H. Jones, Vicksburg.

Discussed by Drs. J. E. Quidor and L. S. Lipincott. Dr. Jones closed.

3. The Use of Diuretic Drugs in the Treatment of Advanced Cardiac Failures.—Dr. W. G. Weston, Vicksburg.

Discussed by Drs. L. J. Clark and S. W. Johnston. Dr. Weston closed.

4. Mucous Colitis. Dr. Nathan Lewis, Vicksburg.

Discussed by Drs. W. H. Parsons, S. W. Johnston, G. M. Street, and R. H. Foster. Dr. Lewis closed.

Drs. William Edwin Akin, Jr., Vicksburg, Walter E. Johnson, Vicksburg, and Robert H. Foster, Anguilla, were unanimously elected to membership in the Society.

Seventeen members and three visitors attended the meeting. A dutch lunch was served.

The next meeting of the Society will be held Tuesday, October 13, at 7 p. m. The program will be in charge of a committee consisting of Dr. S. W. Johnston, Vicksburg, Chairman; Dr. W. C. Pool, Cary; Dr. G. W. Gaines, Tallulah, Louisiana, and Dr. J. A. K. Birchett, Jr., Vicksburg.

CLARKSDALE AND SIX COUNTIES MEDICAL SOCIETY.

The semi-annual meeting of the Society will be held at Clarksdale on November 4, beginning at 7 P. M. with a dinner and carrying right on into the program. The Secretary, Dr. D. V. Galloway, being away for some post-graduate work at Harvard where he was awarded a scholarship for efficient work with the Board of Health, Dr. E. LeRoy Wilkins is acting Secretary of the Society. These meetings are usually well attended and there is always a helpful program.

Dr. J. W. Henderson, for many years a practicing physician of Clarksdale, died on September 10 at 8 P. M., at his home. Dr. Henderson was injured in an automobile accident about a year ago, and while he was able to be about his office some since that time, he had never fully recovered. He leaves a wife, two married daughters and one son, J. W., Jr., who is a high school student.

Dr. J. W. Gray, a physician since the city was a small landing on the Sunflower river, who was in an automobile accident about two months ago, was able to be brought from the hospital and the care of a bone specialist in Memphis, to his home and is doing nicely.

A dissolution of the partnership of Drs. A. B. Carney and J. L. Levy has been announced to take effect October 1. Dr. Carney buying out Dr. Levy's interest in the Garney-Levy Clinic. Dr. Levy will move to an uptown office building.

E. LeRoy Wilkins.

VICKSBURG SANITARIUM.

The regular monthly meeting of the staff of the Vicksburg Sanitarium and Crawford Street Hospital was held on September 10, at 6:30 p. m., with eleven members of the staff and three visitors present. After that presentation of reports from the records department and analysis of the work of the hospital, the following special case reports were made:

1. Carcinoma of the Ovaries.—Dr. G. M. Street.

2. Renal Tumor with Pulmonary Metastases.—Dr. A. Street.

3. Thyrotoxicosis.—Dr. L. J. Clark.

The following selected radiographic studies were demonstrated: Hypertrophy of inner table of frontal bone; Spontaneous pneumothorax; Pulmonary tuberculosis; Lung abscess; Cholelithiasis; Carcinoma of the esophagus; Nephrolithiasis.

The meeting closed with a lunch.

MISSISSIPPI STATE HOSPITAL ASSOCIATION.

Dr. Clyde M. Speck, New Albany, Secretary, reports that the membership of the Mississippi State Hospital Association, as of September 1, now the largest since its organization, includes the following institutions of the State: Biloxi Hospital, Biloxi; Northeast Mississippi Hospital, Booneville; King's Daughters' Hospital, Brookhaven; Madison County King's Daughters' Hospital, Canton; Field Memorial Hospital, Centreville; Columbia Clinic Hospital, Columbia; Fite Hospital, Columbus; McRae Hospital, Corinth; King's Daughters' Hospital, Greenville; Grenada General Hospital, Grenada; King's Daughters' Hospital, Gulfport; Methodist Hospital, Hattiesburg; South Mississippi Infirmary, Hattiesburg; Houston Hospital, Houston; Jackson Infirmary, Jackson; Mississippi Baptist Hospital, Jackson; Laurel General Hospital, Laurel; McComb City Hospital, McComb; Anderson Infirmary, Meridian; Natchez Sanatorium, Natchez; Mayes Hospital, New Albany; New Albany Hospital and Clinic, New Albany; Newton Infirmary, Newton; Bramlett Hospital, Oxford; Oxford Hospital, Oxford; Martin Sanatorium, Picayune; Oktibbeha Hospital, Starkville; Vicksburg Infirmary, Vicksburg; Vicksburg Sanitarium and Crawford Street Hospital, Vicksburg; Water Valley Hospital, Water Valley; Ivy Hospital, West Point; Winona Infirmary, Winona.

An active Fall program of work is being mapped out. It is desired that every reputable hospital

in the State become affiliated with the Association in order to bring about the accomplishment of the greatest good for the greatest number.

Applications for membership should be sent to Dr. Speck.

EFFICIENCY RECORD—COUNTY EDITORS.

Based on items furnished for the Journal in the five months since the meeting of the Mississippi State Medical Association in May.

80 Per cent.

L. Wallin, G. S. Bryan, R. P. Donaldson, E. H. Jones, M. L. Montgomery, C. M. Coker.

60 Per cent

T. J. Brown, A. P. Durefy.

40 Per cent

C. A. Pender, W. N. Jenkins, W. L. Little, G. H. Woods, L. J. Rutledge, W. C. Pool, K. F. McRae, W. H. Curry.

20 Per cent

J. J. James, C. McCall, W. H. Scudder, B. S. McIlwain, C. T. Burt, W. H. Frizell, J. W. Lipscomb, J. S. Hickman, S. A. Majure, R. B. Cunningham, W. D. Smith.

Zero — Naught — Nothing Per Cent.

J. R. Hill, P. Jackson, F. Ferrell, J. A. Hardin, J. P. T. Stephens, W. C. Walker, S. R. Deanes, A. V. Richmond, C. E. Mullins, C. M. Shipp, A. G. Wilde, H. C. Elmore, N. W. Nannery, R. B. Harper, F. E. Linder, B. S. Waller, A. J. Stacy, D. R. Moore, S. S. Caruthers, J. D. Green, H. L. Scales, H. N. Holyfield, W. C. Anderson, S. E. Dunlap, C. M. Murry, H. P. Boswell, B. L. Crawford, S. E. Field, G. A. Brown.

NO COUNTY EDITORS.

The following counties have not yet any county editors, due to failure of Society presidents to make appointments: Bolivar, Clark; Coahoma, Covington, Forest, George, Greene, Humphreys, Jasper, Jefferson Davis, Jones, Kemper, Lamar, Leake, Leflore, Marion, Pearl River, Perry, Quitman, Simpson, Smith, Sunflower, Tallahatchie, Tunica, Washington, Wayne.

HONOR ROLL FOR OCTOBER.

Your editors express their appreciation of the co-operation of the following good people in the make-up of the present number of our Journal:

C. C. Buchanan, J. C. Culley, J. Sidney Eason, W. D. Smith, E. F. Howard, L. S. Gaudet, J. S. Ullman, C. W. Patterson, S. B. McIlwain, D. W. Jones, T. M. Dye, W. H. Scudder, A. H. Little, Mrs. Edley H. Jones, Mrs. E. F. Howard, J. M. Acker, T. L. Bennett, K. F. McRae, R. P. Donaldson, L. Wallin, A. P. Durefy, Harvey F. Garrison, V. B. Philpot, C. M. Coker, L. L. Minor, Charles T. Burt, E. H. Jones, G. M. Street, L. J. Clark, W. G. Weston—30.

BOOK REVIEWS

Operative Gynecology: By Harry Sturgeon Crossen, M. D., and Robert James Crossen, M. D. 4th ed. St. Louis, C. V. Mosby Co. 1930. pp. 1078.

This fourth edition of Crossen's *Operative Gynecology* is infinitely more than a text-book; it is, in fact, a ready reference book for the practicing gynecologist. In his preface, the author clearly brings out the trend of modern gynecology and very properly lays great emphasis on conservatism.

The text is admirably illustrated and the descriptive matter is very lucid. Four additional chapters have been added, and the one dealing with anesthesia is well worthy of note.

The reviewer is of the opinion that this volume is one of exceptional merit, very complete in every detail and is to be recommended both to the student and the gynecological surgeon.

WALTER EDMOND LEVY, M. D.

Hypertension: By Leslie T. Gager, M. D. Baltimore, Williams & Wilkins Co. 1930. pp. 158.

Arterial hypertension as a primary disorder of vasomotor function is the theme of this book. The causative factors, the clinical manifestations and sequelae, and particularly the study and management of hypertension are presented from the standpoint of functional pathology. This is a valuable addition to the much needed monographic contributions in a brief, concise summary of a subject of current interest in which little is known of the origin. The appended bibliography of over 500 titles will afford keys to the major literature of hypertension, for the further study of particular points. A complete subject index as well as an index of personal names is included. Chapters on the definition, historical background, and hypertension in relation to renal disease are worthy of mention. The functional bases of hypertension, chemical factors, incidence, interesting records with tables and charts are presented for study. Symptomatology, clinical studies, studies of the eyegrounds, variability and height of blood pressure and prognosis are discussed. The longest chapter is on treatment. The use of general measures, diet and drugs are completely presented, with a bibliography of especial value which gives a complete resume of present knowledge on the subject. Many misimpressions based on single cases and small groups in the literature

are discriminatingly and unassumingly discussed and corrected. This book would be a valuable addition to any physician's library.

I. L. LOCASCIO, M. D.

Nutrition and Diet in Health and Disease: By James S. McLester, M. D. 2d ed. Philadelphia, W. B. Saunders Co. 1931. pp. 891.

The second edition of this admirable text embodies certain necessary additions and revisions to this rapidly progressing department of medicine.

Written for the needs of the general practitioner it is very complete and detailed. Two chief headings are considered, namely, "Nutrition in Health" and "Nutrition in Disease."

In the latter division the various diseases in which diet is a factor are separately dealt with. Food necessities are enumerated and tabulated menus furnished. Each chapter is followed by a complete bibliography, conveniently grouped as to subject matter contained.

The third part of the text contains many valuable charts and tables.

The work is well planned and well written, and should prove useful to every practitioner, regardless of specialty.

WILLARD R. WIRTH, M. D.

A Century With Norfolk Naval Hospital—1930: By Richmond C. Holcomb, M. D., F. A. C. S. Portsmouth, Va., Printercraft Publishing Company. 1930. pp. 543.

"The Norfolk Hospital," admits author Holcomb, "is the dean of the U. S. Naval Hospitals and few hospitals through the country can boast of an equal age and tradition of service. It has a distinguished service through four wars—the Mexican, War between the State, Spanish-American and Great War." This volume commemorates its one hundredth anniversary. It tells of the first settlement of the land, the commercial importance of tobacco and the part the weed played as a medium of exchange. Well is described old Fort Nelson, the building of the hospital and John Havilland, the yellow fever epidemic, the effects of the four wars, the Corps school and the present glorious institution.

With pride Dr. Holcomb prints a list of those who have served as officers of the Medical Corps

during the past century, many of whom gained renown in the field of medicine and in war. *Sic ait*: "One may glance through the list. Barton, Wales, Browne, Van Reyden and Stitt became surgeons generals. There are names of men who served with distinction during the Mexican War and the War between the States. Jackson, Henderson and Taylor, all ran the batteries at Vicksburg. Some, like McCreery and Conway, were lost with their ships. Ambler died in the frozen wilderness of Lena Delta on the Jennett expedition. Langhorne was wounded in far off Philippine Islands, and others served with distinction in the Great War and possess foreign as well as American decorations."

MAURICE SULLIVAN, M. D.

Recent Advances in Medicine: By G. E. Beaumont, M. A., D. M., F. R. C. P., and E. C. Dodds, M. V. O., M. D., Ph. D., B. Sc. Philadelphia, P. Blakiston's Son & Co., Inc. 1931. pp. 442.

Seldom is one able to find as much concentrated and worth while up to date information as is contained in this small volume. It is the sixth edition of Dr. Beaumont's and Dr. Dodd's exceptionally good little book. Because of its size all the recent important advances in medicine cannot be included of course. However, the authors have selected a few tremendously important advances and have described them tersely and well. Consisting of twenty-five brief chapters it deals with: general clinical investigations, the kidneys, glycosuria and diabetes mellitus, pancreatic function, heratic function, the stomach, basal metabolism, the heart, the lungs, cutaneous protein tests and desensitization, tests for diphtheria and scarlet fever, the nervous system and cerebrospinal fluid, special blood and urine examination and analyses.

The chapters dealing with the heart and lungs deserve special mention.

MAURICE SULLIVAN, M. D.

Genetics and Eugenics: By W. E. Castle. Cambridge, Harvard University Press. 1930. pp. 474. 4th rev. ed.

This is the fourth edition of an originally excellent work, inclining somewhat more toward animal than toward plant genetics. It contains a number of revisions made necessary by advances in the subject between 1925 and 1930. A short chapter on "Human Inheritance in General" has been added, and the chapter on human "Physical

Inheritance" has been greatly enlarged. The well-selected bibliography has been brought up to 1930.

H. N. GOULD, Ph. D.

The Genetics of Domestic Rabbits: By W. E. Castle. Cambridge, Harvard University Press. 1930. pp. 31.

This little monograph describes the numerous fancy breeds of rabbits, with a genetic analysis of their characteristics. A general knowledge of Mendelian heredity is pre-supposed. The plates show photographs of 39 different hereditary types. There is no index.

H. N. GOULD, Ph. D.

Recent Advances in Pulmonary Tuberculosis: By L. S. T. Burrell, M. A., M. D. (Cantab), F. R. C. P. (Lond.). 2d ed. Philadelphia, P. Blakiston's Son & Co. 1931. pp. 240.

In view of the vast literature on this subject, an author who can present the principal trends of advance with clarity, conciseness and intelligence, deserves particular recognition. The subject matter is admirably presented. The content shows broad reading and much personal experience. The chapter on Pneumothorax is unusually good. The volume merits the attention of all interested in tuberculosis.

I. L. ROBBINS, M. D.

International Medical Annual, Vol. 49, 1931. New York, William Wood & Co. 1931. pp. 551.

This year book of medical and surgical diagnosis and treatment is an excellent reference book. The distinguished editors and contributors assure the reader of a thorough, comprehensive and critical review of the progress of medicine during the year. The subject matter is treated alphabetically and a complete and sensible index is appended. There are many good illustrations. The important facts in each article are printed in heavy type. The editorial remarks upon several of the subjects constitute one of the important contributions to the volume.

I. L. ROBBINS, M. D.

Breast-Feeding: By Margaret Emslie, M. D., Ch. B. London, Oxford Univ. Pr. 1931. pp. 142.

With the myriad books already written on the artificial feeding of infants it is refreshing and timely to see this monograph champion nature's way. One would think that such a book would hardly be necessary, but since the trend is so dis-

tinctly toward the bottle, every medical man should read it and learn its lesson.

I am reminded of that passage in one of Oliver Wendell Holmes' medical essays, written in 1867, wherein he states with his inimitable brilliance: "A pair of substantial mammary glands has the advantage over the two hemispheres of the most learned professors' brain, in the art of compounding a nutritious fluid for infants."

This little book takes into consideration the anatomy and physiology of the breast, the establishment and management of breast feeding, the difficulties in breast feeding and the indications for weaning.

Illustrations and charts are provided.

L. VON MEYSENBUG, M. D.

Gould's Medical Dictionary: By George M. Gould, A. M., M. D. Edited by R. J. E. Scott, M. A., B. C. L., M. D. 3rd ed. Philadelphia, P. Blakiston's Son & Co. 1931. pp. 1538.

The third edition of this splendid dictionary appears in a new format and with a considerable number of additional words added to those which appeared in the earlier editions. The actual number of words added to this edition is not given, but the editor states that there are many hundreds of them. There are also incorporated three new tables of pathogenic bacteria, metazoa, and protozoa.

Gould's dictionary is a splendidly edited volume. Apparently all the new words that have come into medicine in the last few years have been included, to judge by a rather cursory search for words which were thought possibly too new to be incorporated in the edition. The makeup of the book is excellent. The printing is clear and distinct, while the appearance, bound as it is in a dark blue leather cover, makes it a volume which would do credit to any physician's desk.

J. H. MUSSER, M. D.

The Physician of the Dance of Death: By Aldred Scott Warthin, Ph. D., M. D., LL. D. New York, Paul B. Hoeber, Inc. 1931. pp. 142.

Fateful the fact is that this book concerning death and the physician should have been written in the shadow of death. Confined to his bed by the first warning of the malady which was soon to terminate his life, Dr. Warthin assembled many pictures and old prints, the collection of which had been his life-time avocation. One wonders if, while compiling his data, he were not cognizant of the Grim Reaper stalking near by, intent upon taking from his studies just as Death summoned

the doctor in the prints he was analyzing. Hurriedly, perhaps a little too hurriedly, he got together his subject matter, wrote his book. It is a scholarly work but certainly no masterpiece. Enjoyable as it is, one cannot overlook many of the criticisms which are pedantic and lack wit. It is regrettable that such a wealth of material could not have been more ably developed.

From all the characters in the numerous Dance of Death motifs the author singled out the physician and studied the mutation of attitudes displayed by the artists of different centuries. He showed the doctor of the fifteenth century represented as a dull, ignorant, bigotted chap who forever gazed into a flask of urine and from a contemplation of the contents therein diagnosed the patient's ailments and prescribed accordingly. The indictment of quackery accompanied the urine gazing medico. Such a *modus operandi* allowed a wide range of interpretations. It made diagnosis a matter of fanciful speculation which unfortunately failed to impress the laity even then. At that time the doctor's social status was not an enviable one. He came about eighteenth or twentieth in the scale of social rating. Antecedent to him usually were pope, kaiser, cardinal, king, patriarch, constable, archbishop, knight, bishop, nobleman, abbot, warden, astrologer, burger, domherr, merchant, Carthusian, sergeant, monk and userer. This order varied but the physician always came far behind the better regarded personages of society.

When Holbein appeared he dealt less harshly with our poor profession. His doctor was a more intelligent type, he read a book (apparently he had an elementary education, perhaps he could count to 50). His face was kindly, he had a pet dog. The author interpreted the possession of a dog as meaning that he was a friendly soul; one wonders if his doctor might have had an investigative trend. Still the crystal ball (his bottle of urine) was not forsaken. Long established institutions, no matter how unworthy, are hard to abandon. But he did appear less a knave than previously and perhaps some of his patients invited him to Sunday dinner occasionally. His predecessor looked like the sort of fellow who would steal the silver from your table.

Little by little the physician gained more respect, more repute. But up until the nineteenth century he was still a subject of some derision and ridicule. Gradually he came into his own, enjoyed a position worthy of his calling and the public considered him not a quack but a virtuous and learned man. This transition Warthin developed extremely well and the sources from which he culled his information are multitudinous.

The book begins with the Period of the Great Wall Paintings, the earliest of which was that of the Cemetiere Aux Innocents in Paris (1424). Then came the Pre-Holbein Block Books and Incunabula followed by Holbein in the sixteenth century, the Imitators of Holbein and the Rococo period, the period of Caricature (the most delightful of all) and finally the modern Dance of Death.

MAURICE SULLIVAN, M. D.

Discovering Ourselves: A View of the Human Mind and How It Works. By Edward A. Strecker, A. M., M. D., and Kenneth E. Appel, Ph. D., M. D. New York, The Macmillan Co. 1931. pp. 306.

An advanced manual of mental hygiene with a psychological basic element. The authors are well known in the neuropsychiatric world. The book is divided into two parts and twenty one chapters, the first division deals with the conception of modern psychology and the intimacies of body and mind through the consciousness, sub-consciousness and unconsciousness.

The second division is explanatory of the psychology of every day life, the conflicting urges of thought, feeling and action. The descriptive explanations of these are gone into thoroughly from every angle. Much stress is laid on the passages regarding extroversion and introversion, with the conversion concept receiving much consideration. Transference and symbolism with their importance is likewise given an important place. The inferiority complex together with self-expression receive commendable interpretation. The volume closes with the sublimation or socializing of our instincts. The volume is well written, excellently printed with much material therein which should be of interest and benefit to neuro-

psychiatrists and those connected with agencies handling conduct and behavior problems.

It would likewise make excellent reading matter for those who specialize in psychology, whether normal or abnormal. The enigma arises: After discovering ourselves are we satisfied?

WALTER JOSEPH OTIS, M. D.

PUBLICATIONS RECEIVED.

W. B. Saunders Company, Philadelphia: The Practice of Medicine, by A. A. Stevens, A. M., M. D., Third Edition. Gonorrhea in the Male and Female, by P. S. Pelouze, M. D., Second Edition. A Text-Book of General Bacteriology, by Edwin O. Jordan, Ph. D., Tenth Edition.

The Williams & Wilkins Company, Baltimore: Yellow Fever, by Henry Rose Carter, M. D., Annals of the Pickett-Thomson Research Laboratory.

Oxford University Press, New York: The Diagnosis and Treatment of Venereal Diseases in General Practice, by L. W. Harrison, D. S. O., M. B., Ch. B., F. R. C. P. E., Fourth Edition. Dynamic Retinoscopy, by Margaret Dobson.

The Manual Arts Press, Peoria: Tables of Food Values, by Alice V. Bradley, B. S.

American Medical Association, Chicago. Simple Lessons in Human Anatomy, by B. C. H. Harvey, M. D.

The Southern Surgical Association: Transactions of the Southern Surgical Association, Volume XLIII, by Robert L. Payne, M. D.

Thacker, Spink & Co., Calcutta: Indian Medical Research Memoirs, by I. M. Puri, M. S., Ph. D., F. E. S.

New Orleans Medical

and

Surgical Journal

Vol. 84

NOVEMBER, 1931

No. 5

THE OPERATIVE CORRECTION OF UTERINE RETRODISPLACEMENTS.*

WALTER T. DANNREUTHER, M. D.,†
NEW YORK.

I would seem unappreciative of the compliment you have paid me and the institution I represent if I failed to acknowledge the pleasure with which I accepted your Chairman's courteous invitation to attend this meeting of the Louisiana State Medical Society. Having visited some of the clinics in New Orleans on a previous occasion, familiarized myself with the superlative character of your professional activities, and developed a friendly contact with several of your distinguished obstetricians and gynecologists, I am particularly grateful for the privilege of participating in your program, and thank you for it.

Retroversion of the uterus implies a turning backward of the entire organ, without any break in the alignment of the cervical canal and uterine cavity, whereas in retroflexion the fundus is sharply angulated on the cervix at the uterine isthmus. For convenience, the term retrodisplacement is used to apply to both retroversion and retroflexion. The best treatment for these pathological conditions is prophylactic, and this involves precautionary measures and sensible therapy during preg-

nancy and the puerperium, as well as re-examination of the patient three and twelve weeks after parturition. The normal position of the uterus is maintained by the upward pressure of the perineal musculature, firm tonicity of the supporting ligaments, and the dynamics concerned in the exertion of intra-abdominal pressure on the posterior surface of the fundus. Hence, most early cases of acquired retrodisplacement can be cured by prompt recognition, repair of perineal lacerations, bimanual reposition of the uterus, and the insertion of a properly fitting pessary.

Many retrodisplacements have followed such simple operations as curettage and trachelorrhaphy, because the cervix has been pulled down to the introitus, dragging the uterus into the axis of the vagina, and the operator has neglected to replace the uterus bimanually. The cervix should always be pushed well back in the pelvis after such operations and kept high up in the vaginal fornix by packing a strip of iodoform gauze firmly into the vagina.

The large number of women coming under my observation who had been operated upon by others for the replacement of a dislocated uterus, with excellent anatomic results but without symptomatic relief, is the chief reason for this presentation. In fact, nothing but the current diversity of ideas and variations in practice on the part of pelvic surgeons justify the re-submission for discussion of so hackneyed a topic as the surgical treatment of retroversion and retroflexion of

*Read before the Louisiana State Medical Society, New Orleans, April 14-16, 1931.

†Professor of Gynecology and Director of the Department, New York Post-Graduate Medical School and Hospital.

the uterus. The necessity for abbreviation precludes elaborate consideration of the details of etiology, prophylaxis, symptomatology, and non-operative therapy, notwithstanding their importance. It is essential, however, to postulate certain criteria which I believe should influence the gynecologist in formulating his indications for surgical intervention and for modification of operative technic: (1) retroversion and retroflexion, congenital or acquired, do not initiate symptoms *per se*; (2) operative reposition of congenital displacements is useless; (3) the symptomatology of version and flexion is often closely simulated by colonic stasis, posterior parametritis, flat feet, loose sacro-iliac joint, focal infection, etc.; (4) the real cause of symptoms excited by apparently uncomplicated uterine displacements is passive congestion; (5) the age, marital state, parity, child bearing potentialities, and vital resistance of the patient should be carefully reviewed before urging laparotomy or committing one's self to a particular operative procedure; (6) an artificially immobilized uterus before the menopause is pathologic, irrespective of its position, and may be the source of future trouble; and (7) an elective operation which fails to afford symptomatic relief is a total failure. These premises constitute the basis for the argument I have to advance.

All experienced gynecologists have discovered congenital retrodisplacements accidentally in nulliparous women. They are characterized by hypoplasia of the pelvic organs, almost complete uterine immobility, short anterior vaginal fornix, and short anterior cervical lip. Such developmental defects never cause pelvic symptoms. Associated menstrual disturbances, if they occur, are due to the hypoplasia, intrinsic histologic features, and coexisting endocrine imbalance, and not to the retroflexion. The futility of an alteration in the position of the uterus under such circumstances is obvious. Again, one has but to recall the

insidious and oft-times long delayed onset of symptoms in cases of acquired retroversion, to become convinced that, if the annoyances were due to the displacement itself, their occurrence would be simultaneous with the precipitation of the malposition, rather than post-dating it. In the latter cases, when the uterus is replaceable bimanually, the symptoms are usually due to gradual distention of the walls of the broad ligament veins and passive congestion. On the other hand, if the uterus is immobilized, the symptoms are caused by complicating factors, such as pelvic adhesions, posterior parametritis, adnexal diseases, etc. But it is essential to bear in mind that an overloaded colon tugging on its mesentery, flat feet, loose sacro-iliac joint, and focal infection may all cause sacral backache, pelvic fullness, dragging sensation, *ma'aise*, and local pain, and exact differential diagnosis is of paramount importance. The number of patients relieved of their complaints after a series of enemas and intestinal cleansing, or vaginal packings with strip gauze and glycerine, or both, despite the persistence of a uterine retrodisplacement, is remarkable.

Every laparotomy for the suspension of a displaced uterus is an elective and not an emergent procedure, and should not be advised unless the hazards involved are minimal, all palliative measures have been exhausted, and subsequent good health and comfort can be honestly anticipated.

I have said on a previous occasion that I do not believe it proper for one to assume the responsibility for another's failures or to appropriate his successes in compiling statistics. I shall not therefore include a mass of figures from the entire gynecological service of the New York Post-Graduate Hospital, but simply utilize the records of some recent personal cases. I found that in my last 1200 operative cases, previous to January, 1931, I had done some form of operation for uterine retrodisplacement 180 times (Table I).

TABLE I.

Surgical Procedures for Retrodisplacement of the Uterus in 1200 Consecutive Pelvic Operations.

Baldy-Webster suspension	40
Crossen's modification of Gillian suspension	108
Kelly ventro-fixation	25
Mann's plication of round ligaments	3
Olshausen suspension	3
Coffey plication of round and broad ligaments	1
Total	180

Of course, all of the operations were supplemented with whatever vaginal plastic repair may have been necessary.

The small number of Baldy-Webster suspensions, 40, is an index of the relatively few patients operated upon for an uncomplicated retrodisplacement, since I regard this technic as the preferable operation, whenever it can be judiciously selected. The reasons for the few in this group are: First, I do not operate upon women under 35, if they can possibly be kept comfortable otherwise; second, the palliative use of a well adapted and properly fitting pessary usually permits deferring operation until after several pregnancies; and third, I regard a large, heavy, subinvolved corpus, any adnexal involvement requiring salpingo-oophorectomy, or markedly attenuated round ligaments, as contraindications. The Baldy-Webster operation is deservedly popular because it is easy to perform and because it interferes less with subsequent pregnancy and parturition than any other corrective procedure. Unfortunately, these same merits have often been responsible for its misapplication. It has been done too often when no operation was imperative, or when the utero-ovarian ligament has been severed on one or both sides. The intact utero-ovarian ligament, tube, and ovary are the only sturdy structures capable of exerting counter-pressure against the pull of the transplanted round ligaments on the thin broad ligament leaves (Fig. 1). It is apparent that if the utero-ovarian ligament is

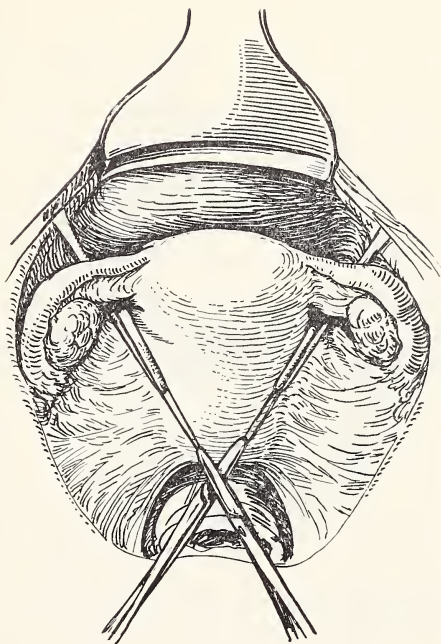


Fig. 1

cut, as it must be when salpingo-oophorectomy is done, the broad ligament will soon yield to the tension and recurrence is inevitable. In some cases the transplanted ligaments have served as a fulcrum for prompt recurrent retroversion rather than as a support for anteversion, because the surgeon neglected to suture the ligaments sufficiently high on the posterior surface of the fundus. It is important to remember that the center of uterine gravity is considerably above the mid-point on the imaginary line extending from the cervical portio to the top of the fundus (Fig. 2). The Baldy-Webster operation is ideal for the patient who has a replaceable uterus and has worn a pessary with relief of symptoms, thus demonstrating to both patient and physician that the symptoms have been due to the displacement and nothing else, and that maintaining the uterus in its normal position will effect a cure. Incidentally, when this operation is

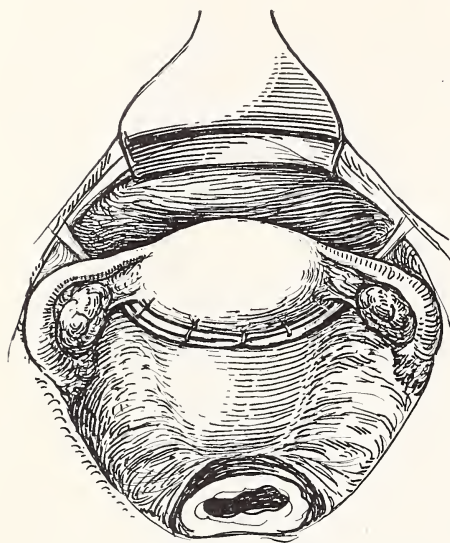


Fig. 2

employed, prolapsed ovaries are well elevated in the pelvis.

The large number of instances, 108, in which Crossen's modification of the Gilliam suspension was done indicates the high incidence of concomitant adnexal disease in the patients subjected to operation for retrodisplacement. Almost without exception salpingectomy or oophorectomy, or both, were necessary, or the uterine corpus was so large and heavy that the Baldy-Webster operation seemed unwise. In my experience, the Gilliam operation has been found to cause little trouble during gestation or delivery and is therefore usually my second choice in women before the menopause. In the early months of a succeeding pregnancy, some patients complain of soreness in the region of round ligament attachment on either side of the linea alba, but this is transitory and of little consequence. In only one case has the operation been responsible for serious dystocia during labor. Crossen's modification of Gilliam's original technic eliminates the artificially created dead space on either side of the round ligaments (Fig. 3), and intestinal

obstruction has not followed in any of my cases, so far as I know. It is applicable irrespective of the presence of adnexa or the degree of subinvolution.

Ventro-fixation of the uterus (Kelly) was performed 25 times in women past the menopause when the round ligaments were so short and thick that a Crossen operation could not be done easily, when the rapid removal of adnexal masses after extensive vaginal plastic work was so easy that hysterectomy did not seem to be warranted, or when advantageously combined with a Crossen suspension in cases in which the uterus was prolapsed to the first degree. I have not done a Kelly ventro-suspension since 1907, and believe it to be an unsurgical procedure. As a matter of fact, the intended suspension usually terminates in a fixation, or the artificially created false ligament so stretches that recurrence is inevitable.

Mann's plication of the round ligaments was utilized in three cases in which the condition seemed ideally adapted to it: uterus small and not to be sacrificed, both

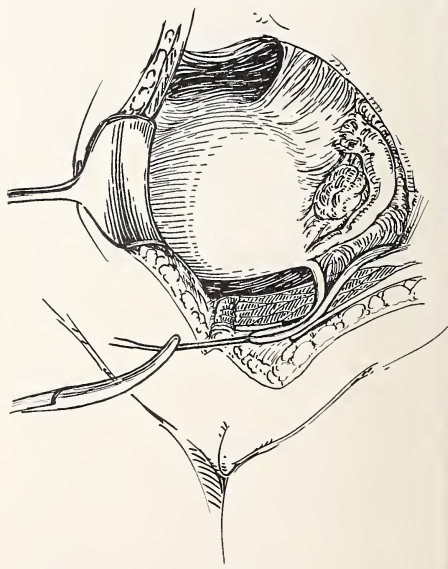


Fig. 3

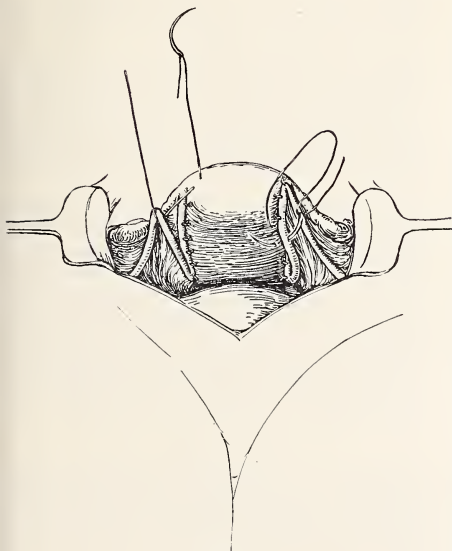


Fig. 4

tubes removed, and round ligaments unusually long but not much thinned out. It served its purpose well each time.

Olshausen's suspension was also employed on three occasions in elderly women, when it seemed desirable to attach the uterus near some particular point on the abdominal wall and when speed was important after other prolonged operative procedures. Except under unusual circumstances, I do not favor this technic, as it tends to immobilize the top of the uterine fundus, and may interfere with subsequent proper bladder expansion.

Coffey's plication of the round and broad ligaments (Fig. 4) proved very useful and satisfactory in one case in which the tubes had been extirpated previously, and the greatly attenuated round ligaments were almost lost in the reduplicated folds of overstretched broad ligaments.

Shortening of the utero-sacral ligaments was combined with several of the above operations, when the cervix was found too far forward in the pelvis, but was never

relied upon exclusively for the cure of a retrodisplacement.

The Alexander-Adams operation should be relegated to the background forever. It requires two incisions in the abdominal wall instead of one, affords no opportunity for intraperitoneal exploration, is sometimes attended by technical difficulties when the round ligaments are thin and hard to find in the inguinal canal, and carries a high percentage of unsatisfactory results.

Finally, I would venture the suggestion that the multiplicity of operations devised for the surgical replacement of a retroverted or retroflexed uterus is not testimony of the uselessness of all of them, as some of our general surgeon colleagues have intimated, but is rather evidence of appreciation on the part of discriminating and conscientious gynecologists that no single technical procedure is universally applicable. Failures do not necessarily represent lack of skill in execution; they often result from immature surgical judgment or personal prejudice in favor of a particular operation.

DISCUSSION.

Dr. C. Jeff Miller (New Orleans): I want to emphasize in the beginning the point made by Dr. Dannreuther, that the fact of the uterine displacement is not at the bottom of trouble that exists. We pay too much attention to the uterus, too little attention to the other factors in the case.

I want also to stress the value of pessaries. A few years ago any gynecologist who acknowledged that he used the pessary was considered an old fogey, but fortunately times are changing and our patients are better for it. I don't know of any condition which requires more careful differentiation of cases than uterine retroversion requires, or any condition in which we should be more cautious in saying that surgery is necessary. In the cases in which we suspect it is, a preliminary test with the pessary will soon settle the question of whether or not replacement will end the symptoms.

Dr. Dannreuther is quite correct in stressing the careful selection of cases of congenital origin for surgery. Retroflexion in the nullipara is practically always of congenital origin and

surgery is frequently of no avail, for local surgery cannot cure the general defects which are the causative factors. I have never felt that I could approve of Graves' suggestion of suspension for congenital anteflexion, and the same argument holds for congenital retroflexion.

Time should always be taken to determine that other conditions do not exist which will make surgery of no avail. Low grade infections in the broad ligament are a particularly common cause for failure, and, since the surgery of retroversion is never emergency surgery, there should be a careful study of every case to eliminate these infections, as well as to eliminate sacroiliac strains and other causes of backache. We are seeing more and more backache these days, partly because women exercise more, partly because they have given up corsets, and it behooves us to recollect that only a small percentage of backaches can be attributed to retroversion.

Different surgeons prefer different operations. The Baldy-Webster technic is useful in carefully selected cases, but the selection is not always done carefully, and the technic is not as simple as many would lead us to believe it is. I have had to interfere in four cases in which this type of suspension was performed too low, and for that reason I cannot endorse it wholeheartedly. The Gilliam operation is rather unsound because it makes an actual suspensory ligament of the round ligament, which is really only a guy rope. Dr. Gilliam told me that after he had devised the operation, he watched the literature to see if intestinal obstruction would be reported from it, but never saw such a case. We know now that intestinal obstruction can follow it and that the danger is not a remote one. My own preference is for the Simpson modification of the Gilliam operation, combined with proper restoration of the pelvic floor, or rather, of the fascial structures of the pelvic floor, for direct repair of the muscular structures is neither necessary nor simple. For the entirely uncomplicated retrodisplacement in the multipara I like the Alexander operation, which obviates opening the abdomen, though I grant the difficulties of its performance. Ventral fixation has only a limited field, and is never indicated when the uterus has not undergone menopausal atrophy; if the organ is at all hypertrophied, removal is certainly the better plan.

Dr. E. L. King (New Orleans): I do not believe that retroversion in the nulliparous woman is a very frequent cause of sterility. I have seen many such patients but I hesitate about advising operations for such a cause, for the reason that often when you tell a woman she cannot become pregnant until she has some surgery done for her

retroversion, she turns up with a pregnancy without any treatment whatsoever.

Moreover, I do not believe that the retroverted uterus gives very much trouble in the course of a pregnancy, for the reason that it rises out of the pelvis by the end of the third month and the pregnancy then continues normally. Incarceration is possible but not likely.

As to retroversion as a cause of the vomiting of pregnancy, again I am skeptical. I am willing, if the reposition can be effected without too much manipulation, to replace the uterus on the chance that the displacement may be responsible, but I have seen too many women with retroverted uteri who had no such symptom to look very kindly on the theory that it is at the bottom of the trouble. I cannot recollect a single case in which I have had reason to regret my policy of letting well enough alone.

Dr. H. W. Kostmayer (New Orleans): In my own work I try to remember that there are three chief uses for the pessary, palliative, curative and diagnostic. Because uterine retroversion can apparently be responsible for so much pathology and frequently is responsible for little, I entirely agree with the idea of using the pessary over a period of time to determine just how much benefit the patient is going to get from surgery. In fact, often after I have used the pessary, I remove it and put the uterus back into its old position, to see whether symptoms will recur. An elective operation which does not relieve symptoms is a total failure, and for that reason we must be particularly careful not to do needless surgery.

Dr. Walter T. Dannreuther (closing): I find that most of the men with whom I come in contact at the Post-Graduate Hospital in New York have little real knowledge of how to use a pessary in cases of retroversion. They often try to make it replace a dislocated uterus, whereas that is not its function; its sole purpose is to serve as a support after the uterus has been replaced by the doctor. The pessary has lost much of its former popularity because erroneous conceptions prevail concerning its indications and its application. The principles of its design are not generally understood, the technic of fitting an individual patient is seldom carried out correctly, and few physicians seem to realize that a pessary has no place in the treatment of any uterus which is not freely mobile, and which therefore cannot be replaced bimanually.

A difference of opinion is always interesting. Whenever a paper is presented and everyone agrees with the essayist, it is probable that the paper might better have been left unread. So I am glad that Dr. Miller and I are not in accord

regarding all details of the subject under discussion. Different operators favor various surgical correctional methods. For example, in Graves' clinic you will find enthusiastic advocates of the Olshausen suspension, while elsewhere some other procedure will be used in the majority of cases. The important point I tried to emphasize in my paper is that no single operative technic is adapted to all cases indiscriminately. I think that Dr. Miller had in mind the original Gilliam operation rather than Crossen's modification of it, which is very much like the Simpson modification he himself favors. In the first instance the perforation is made close to the internal ring, while in the other the ligament is pulled under the peritoneum from the ring itself.

ONE THOUSAND CASES OF UTERINE FIBROIDS IN THE NEGRO RACE.*

H. B. ALSOBROOK, M. D.,

NEW ORLEANS.

This paper is based upon a review and study of one thousand consecutive cases of uterine fibroids in the negroes operated upon in Charity Hospital, located at New Orleans, Louisiana, during the years of 1928, 1929 and 1930. Included in this compilation are all cases of fibroids operated upon and filed under the heading of fibroids in the record room, no attempt being made to single out our service or any particular gynecological service. However, cases that the operator did not diagnose post-operatively and the pathologist did not report as fibroids were not included.

Just why fibroids of the uterus should be much more frequent in the negro race than in the white race, I am unable to say. C. Jeff Miller of New Orleans, states: "that from one third to one-half of all the colored women over fifty years of age present this type of growth." Rudolph Matas, in 1896, found fibroids to occur five times more often in the negro race than in the white race. Peaslee, in 1872, stated: "that few negro women who died over forty at the house for colored incurables in New York were free from this disease." Curtis

Table No. 1—Tabulation of Ages of Fibroids on Admission to Hospital.

Age Periods	Percentage
19-25 years	2.5
25-30 years	15.4
30-35 years	24.5
35-40 years	29.4
40-45 years	17.4
45-50 years	8.6
50-55 years	.3
55-61 years	.2
No Record	1.7
Youngest—19 years	
Oldest—61 years	
Largest one year period—38 years.....	8.8

Rosser, in 1923, stated: "that fibroids in the negress appeared four times as often as in the white." Ballock, in 1894, called attention to fibroids being a process constituting a racial peculiarity. John Hopkins autopsy records showed 33.7 per cent of all negroes over twenty to have had fibroids.

The family history, the past history, the marital status, as well as previous operations were not considered as they were found to be rather confused, indefinite and of no particular value.

AGE.

The age of the patient as referred to in table No. 1, is often of importance in choosing the procedure for treatment of fibroids. In these cases there is always an element of uncertainty as to the correct age. Hysterectomy, myomectomy, radium and roentgen-ray are the methods of procedure. Each has its place, its known indications and contra-indications which are well defined. The advocates of hysterectomy will note that 24.5 per cent of all cases came in the period from 30 to 35 years; 29.4 per cent came in the 35 to 40 year period; 17.4 from 40 to 45 year period; 8 per cent in a single year period of 38. The advocates of myomectomy will note that 17.9 percent were patients under 30 years of age. The roentgen-ray and radium advocates will note that 9.1 per cent were over 45 years of age.

*Read before the Louisiana State Medical Society, New Orleans, April 14-16, 1931.

Table No. 2—Age Period Per cent of Beginning Menstruation.

Age Periods	Percentage
9 years	.2
10 years	1.7
11 years	3.4
12 years	15.2
13 years	26.9
14 years	20.2
15 years	14.2
16 years	5.9
17 years	1.4
18 years	1.5
19 years	.3
23 years	.2
No age given	8.9

COMPLAINT AND SYMPTOMS.

The complaint and symptoms, as noted in table No. 4, were divided into two groups, the first being of major importance and the second being of minor importance. Some had one complaint or symptom and others had several.

Pain—Much to my surprise pain headed the list with fifty-nine and eight tenths per cent. The pain may be independent of a menstrual period or limited to such time; it may be characterized as dull and bearing down or sharp and lancinating. The pain which is independent of menstruation is usually due to the pressure or pulling of the fibroid uterus upon the surrounding parts; as intestinal or omental adhesions or neighboring inflammatory processes as oophoritis, salpingitis or appendicitis. Fibroids free from adhesions and impaction give no abdominal pain; however, after the tumor attains a certain size it distends the abdomen and causes a feeling of fullness and difficulty of breathing.

Backaches—From a gynecological standpoint these may be due to pelvic congestion, adnexal disease or the involvement of the lymphatics from a cervical infection.

Leukorrhœa—This symptom was noted in 32.1 per cent, of from a week to several years duration. Some complained of premenstrual leukorrhœa, but the majority was during the menstrual interval.

Tumor—This was reported in 28.1 per cent of this series. The time interval of the tumor was from three weeks to fifteen years as noted in table No. 5. The one year duration had the largest percentage with 29 per cent plus. In some instances the patient discovered the tumor, in other cases they sought relief for some vague symptoms or trivial complaint and did not know they had a tumor until it was demonstrated to them by a physician.

Bleeding—Such a symptom was reported in 6.1 per cent but it will be noted that menorrhagia was complained of in 24.2 per cent, 22.5 per cent with metorrhagia. The largest per cent of bleeding was menstrual. I am under the impression that the 6.1 per cent was intermenstrual bleeding. As the low mentality of these cases is to be considered, it is hard to separate these symptoms. However, in the vast majority of cases, the menstrual function is in no way influenced by the fibroid. We have not the slightest hesitancy in saying that the uterine bleeding is due to the fibroid encoaching upon the uterine mucosa. No matter how large the fibroid, so long as the contour of the uterine cavity and the mucosa is not infringed upon by the fibroid, there will be rarely any disturbance of menstruation. From table No. 4, pain and tumor was 2.5 per cent; pain and bleeding 1.5 per cent; bleeding and tumor

Table No. 3—Age at Menopause

Age Period	No. of Patients
33 years (youngest)	1
34 years	1
36 years	1
37 years	2
39 years	1
40 years	2
41 years	1
42 years	1
45 years	2
46 years (largest number in single year period).....	6
47 years	4
48 years	2
50 years	2
60 years (oldest)	1

.7 per cent; pain, bleeding and tumor .2 per cent; constipation 26.2 per cent; dysmenorrhea 21.5 per cent. bladder symptoms 14.3 per cent; backaches 11.4 per cent; loss in weight 4.6 per cent; gain in weight .3 per cent; neuritis .5 per cent.

Constipation—This complaint was present in 26.7 per cent of from a few weeks to years. In many instances fibroids are the direct cause of constipation, especially when the tumor is of moderate size and is impacted in the pelvis. On the other hand, we see many cases of constipation without fibroids. When we consider the unbalanced diet and irregular habits of these patients, we wonder why there is not more constipation.

ASSOCIATED DISEASES.

Heart disease and hypertension—These show the highest percentage as noted in table No. 6. 17.7 per cent had a systolic pressure over 150 m.m. of mercury, 1.9 per cent a systolic pressure of over 200 m.m. of mercury, 9.5 per cent some valvular lesion, making a total of 29.1 per cent that came under this classification. This does not include the cases of myocarditis, dilatations and hypertrophies. In Boldts series nearly fifty per cent suffered from cardiac palpitation and dyspnea; and exhibited murmurs and an increase or irregularity

Table No. 5—Tumor Duration

Year Period	Percentage
Less than one year	23 plus
One year	29.3 plus
1-5 years	32.5
6-15 years	11.4
Duration not known	.3

of the pulse rate. Winter, in 26 of his cases autopsied, noted brown atrophy, fatty degeneration and myofibrosis. In an analysis, he concluded that there were but five of these cases in which no other cause than fibroids could be explained for these changes. Winter, in another series in which an internist examined the patients before and after operation, found the heart normal in 60 per cent of the cases. 30 per cent of the cases, murmurs and impure tones were found, 6 per cent dilatations and hypertrophies without valvular or myocardial disease, 1 per cent there were valvular lesions and in 1 per cent myocardial disease. The follow up in these cases was sufficient to determine positively that the condition of the heart had been benefited by the operation. Almost all of the murmurs and impure tones had cleared up; while a large majority of the hypertrophies and dilatations had disappeared. Kelly and Cullen concurred in the findings of Winters. For these reasons, fibroids have supposed to extend a peculiar specific effect upon the heart which produces a degeneration of the cardiac muscle. It cannot be denied that advanced degeneration, infection and necrosis may produce toxins which cause a change in the cardiac muscle. A pathological state of the ovary may offer some explanation. The mechanical resistance of the fibroid or the exertion of the tumor upon the pelvic or abdominal vessels has been alleged to cause a cardiac dilatation and insufficiency. The veins of the pelvis and lower extremities are frequently dilated and enlarged from pressure and interference with return of the venous blood of the heart. These factors alone cause more frequent embolism and thrombosis than any other cause.

Table No. 4—Complaint and Symptoms.

Major	Percentage
Pain	59.8
Tumor	28.0
Bleeding	6.1
Pain and tumor	2.5
Pain and bleeding	1.5
Bleeding and tumor	.7
Pain, bleeding and tumor	.2
Minor	Percentage
Leukorrhea	32.1
Constipation	26.7
Menorrhagia	24.2
Dysmenorrhea	21.5
Metorrhagia	22.1
Bladder Symptoms	14.3
Backaches	11.4
Loss in weight	4.6
Neuritis	.5

Syphilis—11.7 per cent of all cases operated upon had four plus positive Wassermanns. There were seventy-eight cases recorded as having been discharged with four plus Wassermann to receive anti-luetic treatment before they were operated upon. These were not included in this tabulation.

Gel Horn of St. Louis, as well as Theilheiber, thinks there is some relationship between syphilis and fibroids. From our observation in this series, the convalescence of the patients with four plus Wassermanns were as good as those with negative Wassermanns. Referring to table No. 6, tonsillitis was noted in .7 per cent, nephritis in 3.8 per cent, malaria in .5 per cent, asthma in .5 per cent, tuberculosis in .3 per cent, arthritis in .2 per cent, pyelitis in .2 per cent, diabetes in .3 per cent.

BLOOD FINDINGS.

In table No. 7, in 45 red blood counts, the lowest was 1,750,000; the highest 5,250,000; an average of 3,692,911.

The 52 hemoglobin determinations (the Talquist Scale being used) showed the lowest hemoglobin was 20 per cent, the highest was 75 per cent, an average of 59.1 per cent.

The sedimentation time had an average of 54 $\frac{3}{4}$ minutes in the cases recorded.

The average coagulation time in cases reported was 3 minutes and ten seconds.

Anemia—A secondary anemia is a common finding in patients with fibroids. This is the result of a profused menstrual or intermenstrual flow. Women with submucous fibroids are apt to lose large quantities of blood, and time and patience on both the part of the patient and the surgeon is necessary to put the patient in the proper condition for operation. Transfusion, the citrate method, was used before and after operation in several cases with splendid results. If operation is necessary with a marked anemia, the operation should be done as quickly and rapidly

Table No. 6—Associated Diseases.

Diseases	Percentage
Hypertension:	
Systolic pressure over 150 m.m. and less than 200	17.7
Systolic pressure over 200 m.m.	1.9
Heart disease and hypertension (not included in above)	9.5
Syphilis (serum reaction basis for diagnosis)	11.7
Nephritis	3.8
Tonsillitis	.7
Malaria	.5
Asthma	.5
Tuberculosis, pulmonary	.3
Arthritis	.2
Pyelitis	.2
Diabetes	.3

as possible; doing no more than is absolutely necessary to relieve the patient of the pathology. Donors should be at hand and ready for transfusion, if necessary. However, infusions of glucose and saline will often suffice for the time being.

FERTILITY, MISCARRIAGES, STERILITY.

Referring to table No. 8, there were 43 per cent of the patients that had borne full-term children; 57 per cent that had not borne full-term children; 35.9 per cent had never been pregnant; 18.8 per cent of the series had had only one child, the youngest of this group was 3 years, the oldest child was 37, giving an average of 18.8 years. By studying the table, you will note the greater the number of children, the less the number of patients; there was only one that had borne eleven children.

Miscarriages—These were classed in all cases up to eight months of pregnancy. This had to be done due to the fact that the menstrual history was rather indefinite and confused in a large number of cases. There were 37.1 per cent of the patients that had had 471 miscarriages.

Sterility—The relation between fibroids, fertility and sterility has long been a matter of much discussion. The question, however, is, whether fibroids cause sterility or whether sterility causes fibroids?

Table No. 7—Blood Work.

Red Blood Count:

Lowest	1,750,000
Highest	5,250,000
Average	3,692,911 plus

Hemoglobin (Talquist Scale):

Lowest	20.0 Per cent
Highest	75.0 "
Average	59.1 "

Coagulation Time:

Average time—3 minutes, 10 seconds.

Sedimentation Time:

Average time—54% minutes.

Kelly and Cullen reported that more than 50 per cent of their cases had never had children. Lynch, in his series, reported that 45 per cent had never borne children. It would seem that in this series with 57 per cent that had not borne full-term children and 18.8 per cent of one-child sterility, totaling 73.8 per cent of sterile patients, that there might be some relationship between fibroids and sterility. Reynolds and Macomber, also Penrose, thinks the situation of fibroids in the uterus is the chief factor in producing sterility; as in the submucous fibroids producing improper drainage and congestion. The interstitial type creates pressure and interferes with the circulation of the uterus, causing congestion sufficient to alter the secretions and functions of the endometrium. He also states: "the multiplicity of fibroids has an increasing factor in the production of sterility."

OPERATION.

Surgical procedures have been employed in dealing with fibroids since the advent of antiseptic surgery, when Lawson Tate advocated the removal of the appendages as a curative method. Burnham of Lowell is credited with the first supra-vaginal amputation of the uterus for removal of fibroids in 1853.

In table No. 10, the operations were divided into supra-vaginal hysterectomy, which means the removal of the body of the uterus; pan-hysterectomy, including

the body of the uterus and cervix; myomectomy, removal of the tumor from the body of the uterus; salpingo-oophorectomy, removal of the adenexa without reference to the uterus. This method was resorted to because of the nomenclature that was used by the different individual operators. 84.5 per cent had supra-vaginal hysterectomy, 10.5 per cent had pan-hysterectomy, 4.2 per cent myomectomy, .8 per cent exploratory laparotomy that the pathology was so extensive that the operation was postponed or that the patient succumbed on the table before the operation was completed. 79 per cent had bilateral salpingectomy, 16 per cent had unilateral salpingectomy, 5 per cent neither tube was removed. 52.5 per cent had bilateral oophorectomy, 24.2 per cent had unilateral oophorectomy, 23.3 per cent neither ovary was removed. It will be noted that more conservation was used in ovarian tissue than in the other organs.

From my personal experience, surgery appeals to me because it permits the conservation of tissue when indicated and makes possible the removal of fibroids or other pathology. I do pan-hysterectomy where the cervix is badly diseased and accessible and the patient is in good condition. I do supra-vaginal hysterectomy in cases where the cervix is not diseased and is not accessible, but when it is diseased I insist on taking out the cervix along with the uterus.

Much has been written in favor of removal of the cervix in all cases. Leonard found 3 per cent of cervical carcinoma associated with fibroids; Polak, 2 per cent; Davis, 6.5 per cent; Kostmayer found the mortality about the same from pan-hysterectomy as with supra-vaginal hysterectomy plus the carcinoma of the remaining cervix. While this evidence is convincing it is probable, nevertheless, that in the hands of the average and inexperienced operator, more patients would succumb as the results of increased scope of the op-

Table No. 8—Children and Miscarriages.

	Percentage
Number having full term pregnancies.....	43.0
Number not having full term pregnancies....	57.0
Number never pregnant.....	35.9
Patients having miscarriages.....	31.7
No. Miscarriages	No. Patients
One	215
Two	59
Three	24
Four	8
Five	3
Six	2
Seven	1

eration than from the occurrence of carcinoma of the cervix. In this case it would seem better to leave the cervix for further treatment or possible carcinoma than to raise the primary mortality of pan-hysterectomy and at the same time the patient would have a few years of health and usefulness. Unfortunately the hypertrophied, lacerated and diseased cervix, which should come out, is the most difficult to remove.

Ovarian tissue is preserved, if possible, up to the menopause. Truesdale states: that, "only in the rare circumstances does hysterectomy necessitate the removal of the ovary." In our series it was 52.5 per cent that had bilateral oophorectomy.

Irradiation and myomectomy are possible only in occasional cases; the size, the multiplicity and the high percentage (95 per cent), of adenexal disease are contraindications for their use. Polak observed hypertension and a nervous phenomena were more pronounced after the use of radium than after operation. The objections to myomectomy are: the high prevalence of tube ovarian disease, that occasionally is more serious than hysterectomy, that it may be necessary to reoperate to remove the uterus for fibroids not detected at the first operation and pregnancy following myomectomy may abort, or labor may be complicated by a ruptured uterus. W. J. Mayo reported one death in 157 cases of consecutive myomec-

tomies. Kelly and Cullen 5.4 per cent primary mortality in myomectomies. The cases most suited for myomectomy are: those in which the tumors are small and few in number, subperitoneal tumors and cases under 30 years old with no tubo ovarian disease. C. Jeff Miller stated that hysterectomies were necessary in 98 per cent of these colored cases.

While there is no reason to be conservative in a patient nearing menopause, we note that these patients begin menstruating early and menopause is started in the 30 to 40 year period. In this clinic, we see many cases where conservative surgery has been done and in a few months the same symptoms bring the patient back for the more radical type of procedure. On the other hand, we have the disagreeable and annoying symptoms of artificial menopause to combat, but fortunately the negress does not suffer as much as the whites. The social and economic condition of these patients demand that the plan of treatment be instituted that will insure a prompt and permanent cure.

ANESTHESIA.

General anesthesia, including ether, nitrous oxide, ethylene and a combination of all was used in 67.5 per cent of the cases. Spinal anesthesia in 32.5 per cent. The largest number of spinal cases was in 1930. Some services used spinal almost exclusively, while others did not use it at all. In the low anesthesia as is used in gynecological cases, the unpleasant symptoms are practically

Table No. 9—Fertility

Number of Children	Number of Patients	Youngest Child	Oldest Child	Average Age
1	188	3	37	18
2	122	2	36	15
3	46	5	20	14
4	31	2	21	10-1/2
5	14	5	6	5-3/10 plus
6	16			
7	5			
8	2			
9	3			
10	2			
11	1			

never seen. In our service, we use spinal exclusively; novocaine crystals dissolved in the spinal fluid and immediate Trendelenberg position has given us excellent results and our mortality has been nihil since this technic has been followed. Spinal anesthesia makes possible the free intake of fluids immediately, preventing post-operative complications such as, shock, a marked decrease in nausea and vomiting and a much less tendency towards gastric dilatation and adynamic ileus. It is of great advantage in cases of hypertension, diabetes, nephritis, excessive fat abdomens, pulmonary tuberculosis, influenza epidemics and in general poor surgical risks. There is less urinary retention, fewer post-operative wound infections and the stay days in the hospital are also less, and for the operator, the relaxation is complete and makes difficult operations easy.

PATHOLOGICAL REPORT.

For simplicity and convenience, I grouped patho'logical conditions under acute, subacute and chronic, fibroids and multiple fibroids. Multiple fibroids were found in 47.6 per cent and fibroids in 63.4 per cent. Acute salpingitis in 5.5 per cent; subacute in 12.9 per cent; chronic in 76.5 per cent; tubes reported negative, 2 per cent; pregnancy complication fibroids .8 per cent; dermoid cyst of the ovary, .7 per cent; adenocarcinoma .4 per cent. The pathological report of the endometrium and the ovaries was purposely left out owing to the length of their study.

The appendix was removed in 69.3 per cent of the cases. The operator seldom mentioned any gross pathology of the appendix, but simply stated that it was removed as a routine measure. To my surprise and teaching that appendicitis was very rare in the negro race, we find a very interesting pathological survey. Chronic appendicitis in 78.9 per cent, subacute in 18.8 per cent and .2 per cent were acute and only .28 per cent were reported negative. This pathological report would lead us to revise our opinion concerning appendi-

Table No. 10—Operations.

	Percentage
Super-vaginal hysterectomy	84.5
Pan hysterectomy	10.5
Myomectomy	4.2
Exploratory laparotomy	.8
Bilateral salpingectomy	71.0
Unilateral salpingectomy	15.0
Tubes not removed	5
Bilateral oophorectomy	52.5
Unilateral oophorectomy	24.2
Not removed	23.3
Appendectomy	69.3

citis in the negro race. It is interesting to note the parallel comparison between the cases of chronic appendicitis and chronic salpingitis as well as the other condition in both the tubes and the appendix.

MORTALITY.

The most gratifying results of this report was the low mortality rate which was only 2.7 per cent. This mortality rate rates with the lowest in the country and much lower than several of the other clinics. However, when we consider the extensive pathology and the poor surgical condition of these cases and I think it is exceedingly gratifying.

SUMMARY.

1. Fibroids in the negro race are approximately five times as frequent as in the white race.
2. Pain is the most common of symptoms.

Table No. 11—Pathological Report.

	Percentage
Multiple fibroids	47.6
Fibroids	53.4
Acute salpingitis	5.7 plus
Subacute salpingitis	13.4 plus
Chronic salpingitis	80.0 plus
Negative tubes	.2 plus
Pregnancy	.8
Dermoid cyst	.7
Adenocarcinoma	.4
Appendicitis:	
Acute	.72
Acute and chronic	1.3
Subacute	2.1
Subacute and chronic	16.7
Chronic	78.0
Negative	.28

3. The action of fibroids upon the cardiac system.

4. The high percentage of sterile patients with fibroids.

5. Pan hysterectomy when cervix is diseased and when it is accessible and not diseased.

6. Supra vaginal hysterectomy where the cervix is not diseased and is not accessible.

7. Myomectomy, radium and roentgen-ray have a limited field.

8. Ovarian tissue conserved whenever possible.

9. The high percentage of adenexal disease.

10. Spinal anesthesia, anesthetic of choice in experienced hands.

11. The high percentage of appendicitis in the negro race.

12. Low mortality rate in the negro race.

BIBLIOGRAPHY.

1. Polak, J. O.: *Pelvic Inflammation in Women*, Ed. 1, New York, Appleton, 123-134, 1921.
2. Kelly & Cullen: *Myomata of Uterus*, Philadelphia, Saunders, 496-570, 1909.
3. Anspach: *Gynecology*, Ed. 1, Philadelphia, Lippencott, 292-328, 1924.
4. Smear's, G. P.: *Obstetrics*, Ed. 1V, Philadelphia, Lippencott, 1924.
5. Bandler, S. W.: *Medical Gynecology*, Ed. 1V, Philadelphia, Lippencott, 849-860, 1924.
6. DeLee, J. B.: *Obstetrics*, Ed. 1V, Philadelphia, Saunders, 557-561, 1921.
7. Williams, J. W.: *Obstetrics*, Ed. V, Philadelphia, Appleton, 834-837, 1926.
8. Kostmayer, H. W.: In hysterectomy for benign disease should cervix always be removed, *South. M. J.*, 22:475-478, 1929.
9. Propper & Simpson: *Malignant leiomyoma*, *Surg. Gynec. & Obst.*, 29:39-44, 1919.
10. Mayo Clinics: 11:349, 1919.
11. Baldwin, J. F.: Hysterectomy in certain cases of pulmonary tuberculosis: particularly as an alternative for therapeutic abortion: *Surg. Gynec. Obst.* 37:201-205, 1923.
12. Truesdale, P. E.: *Uterine fibromyomata*, compilation of end results in 300 cases treated by operation, *Boston M. S. J.* 189:97-101, 1923.

13. Lynch, Frank W.: *Uterine fibromyoma*, *Jour. A. M. A.*, 94:156-161, 1930.

14. Cohen, Joseph: *Uterine fibroids*, *South. M. J.*, 23:875-880, 1930.

15. Boldt: *Abdominal tumor in negro race*, *Maryland M. J.*, 19:81, 1888.

16. Ballock, E. A.: *Relative frequency of fibroid processes in dark skinned races*, *Med. News*, 46:69, 1895.

17. Rosser, C. J.: *Morbidity protologic peculiarity of negro, fibroplastic diathesis*, *Am. J. Surg.*, 37:265-271, 1923.

18. Matas, R.: *Surgical Peculiarities of Negro*, 1896.

19. Miller, C. Jeff: *Fibroids in the negro race in charity hospital*, *New Orleans Med. Surg. Jour.*, 76:461-465, 1924.

DISCUSSION.

Dr. H. W. Kostmayer (New Orleans): Dr. Alsobrook's paper serves a useful purpose in that it shows us the end results of the surgery of fibroids. It makes it clear that surgery in this condition is relatively safe.

Another most interesting consideration is the relation of fibroids and sterility. His figures bear out my own theory of the relationship. Less than one per cent of these patients showed no changes in the tubes. Salpingitis of some sort was reported in nearly 95 per cent. I have always leaned to the theory that salpingitis is the etiologic factor in the sterility associated with fibroids, and that the fibroids occur because of the result of changes in the uterus which are in turn the result of the sterility. That is, I believe that the sterility causes the fibroids and not that the fibroids cause the sterility.

It would be most interesting if we could follow these colored women from the beginning of their illness, and particularly if we could follow those on whom myomectomy was done, but this is practically impossible. The negro woman is a gypsy, here today and gone tomorrow, but I still wish we could trace her, and that we could study the effect of her environment and her sexual life on the progress of her disease.

Dr. Hilliard E. Miller (New Orleans): A comparative survey such as this is always of value and it corresponds, I think, with the impressions of the surgeons who take care of the colored patients at Charity Hospital. It shows, as Dr. Kostmayer said, that the surgery of uterine fibroids is safe surgery, for it can be performed with a very low mortality rate even in women who exhibit the complications which these colored women do. It is very rare to find a colored woman with a fibroid and nothing else, very usual to find her exhibiting half a dozen other forms of pelvic pathology.

I should like to make it clear that the statement of Dr. C. Jeff Miller, quoted by Dr. Also-

brook, that he did 98 per cent of hysterectomies for fibroids, had reference only to fibroids in colored women. On our private services we do from 12 to 15 per cent of myomectomies, but conditions, as you know, are very different. Myomectomy is an operation that should be more frequently considered. In our hands it gives a curability of about 90 per cent, and subsequent pregnancies amount to at least 25 per cent of all such cases. Moreover, if the fibroids should recur, radium is always a possibility in women advancing in years, and a second operation is seldom necessary.

Radium is indicated in the interstitial type of growth, not larger than a four months' pregnancy, in which tubal disease can be definitely eliminated. It avoids a surgical procedure, which is always attended with a minimum of risk, and in the cases we have followed the results have been almost uniformly good.

I do not know of any gynecologic problem which is more satisfactorily standardized than the problem of uterine fibroids. In young women with small growths, myomectomy is the ideal procedure when the indications can be met. In patients over 38 to 40, with interstitial growths of the proper size, radium gives excellent results. In other cases, surgery is indicated and can be done with a very small risk, as this paper shows.

One point in the technique of supra-vaginal hysterectomy might be mentioned. It is well to be sure that we do not perform the operation too low. Curtis has shown that the cavity of the uterus remains sterile in the face of unbelievable pathology elsewhere in the pelvis, and for this reason operation should always be done well above the internal os. The mortality rate is lower and the morbidity lessened when this precaution is followed. The experienced surgeon should not hesitate to perform the complete operation when it is indicated, for the risk is practically no greater.

Dr. W. D. Phillips (New Orleans): Having worked in the wards of Charity Hospital for a number of years, I well appreciate the very complete statistics as given by Dr. Alsobrook, and whereas I agree that what he has said regarding work at Charity Hospital may be true, I do not feel that it represents the true status of our private patients. I was somewhat surprised at the small percentage of myomectomies in his series of cases. I am sure you would find a larger percentage in a survey of private cases. Unfortunately, at Charity Hospital, one rarely sees the small fibroids. These patients do not seek advice until the tumors have grown to a

large size, or maybe complicated with extensive pelvic disease. I know of no type of patients that present such problems as do the colored gynecological cases at Charity Hospital. They differ in many ways from our private patients.

Eight or ten years ago I read a paper on the subject of uterine fibroids before the Louisiana State Medical Society, and while I sat here this afternoon and listened to this paper, I was impressed with the fact of how little the treatment of fibroids has changed. Then, as now, we could group our fibroid cases, particularly with reference to the size and type of growth.

In my opinion the small uncomplicated fibroids in young women, still in the child-bearing period, demand myomectomy wherever it can be done. The small fibroids in older women, smaller than a three or four months pregnant uterus (if not predunculated) may usually be treated with radium, provided, of course, that the patient has passed the child-bearing period. The larger tumors, in elderly women, associated with or without pelvic disease, demand surgery. Supra-vaginal hysterectomy or incomplete hysterectomy is preferable when the cervix is not diseased, for in the hands of the average surgeon, it carries with it a lower mortality rate than the complete hysterectomy. Preliminary cauterization of the cervix is of value and I feel that it not only reduces mortality but morbidity as well. It is done routinely in my service and I would like to ask Dr. Alsobrook if he advocates it as a preliminary procedure to hysterectomy.

Dr. Joseph Cohen (New Orleans): At the meeting of the Southern Medical Association in Miami, it was my good fortune to read a paper reporting one thousand cases of uterine fibroids collected from the records of Charity Hospital. These were consecutive cases, running back from July, 1929. My percentages do not entirely correspond with Dr. Alsobrook's. The white patients furnished 10.3 per cent of the total, the colored patients 89.7 per cent. That is, the ratio was 1 to 9.

I was especially interested in the problem of sterility and fertility. Of the 1,000 patients 371 were sterile, 46.1 per cent, and 35 per cent of these were never pregnant at all, the remainder having conceived but having had no living child. I began to theorize, and I quote from my paper:

"Why did these women either have no children or have only one child? Is the fibroid responsible for their sterility or para one lives? If so, how is it responsible? By mechanical interfer-

ence? Yes, in some instances, either by pressure on the adnexa, interfering thereby with function, or by obliterating either the uterine cavity or the cervical canal. Does the fibroid gives off a secretion or hormone that is responsible? Perhaps! And yet, how about the patients with fibroids who have several children? It may be that the fibroid has active periods and quiet ones, and that during these active periods some inactivating substance is produced which inactivates the reproductive cycle of the patient, keeping her sterile, and that during the passive periods when the inactivating substance is not produced, the reproductive cycle becomes active again and the patient becomes pregnant."

I was interested in the Wassermann reaction. Positive Wassermans, varying from plus 1 to plus 4 were found in 20.4 per cent of these patients, showing that they can still have syphilis and fibroids and bear children. The mortality rate in my series was 4.6 per cent in the cases submitted to surgery; all of them were not operated on. On some services operation is done with the Wassermann still positive, on others the patient is referred for anti-luetic treatment before surgery is undertaken, and I was interested to see what effect this variation in treatment would have on the mortality rate. It had none at all. The patients with positive Wassermans at the time of operation fared no worse, either from the standpoint of morbidity or the standpoint of mortality, than did those whose syphilis was treated prior to operation.

Dr. E. L. King (New Orleans): I rise to dissent from Dr. Alsobrook in the matter of the dangers of uterine rupture if pregnancy occurs after myomectomy. I should like to know whether he has any figures to prove his point. The experience we have had does not bear out his statement, and for my own part, the possibility of future pregnancy would certainly not deter me from doing a myomectomy, but would serve rather as an indication, for a patient who is properly supervised runs practically no risk of this catastrophe.

Dr. H. B. Alsobrook (closing): We do not use preliminary cauterization before pan-hysterectomy, as Dr. Phillips suggests, but we do have a special preparation. On the morning of operation, after a cleansing vaginal douche of potassium permanganate, the patient either voids or is catheterized; then the vagina is filled by syringe with a solution of iodine and alcohol in equal quantities until the fluid overflows from the vulva. A starch pad is then applied, and in our opinion this technique lessens both our morbidity and our mortality.

In reply to Dr. King, I have no figures for the percentage of uterine rupture after myomectomy, and I would remind Dr. Cohen that my percentages differ from his chiefly because my figures concern only fibroids in the colored race.

RADIUM IN THE TREATMENT OF CERTAIN DISEASES OF THE UTERUS.*

J. W. BARKSDALE, M. D.,

JACKSON, MISS.

In a consideration of uterine diseases in which radium is applicable I shall limit myself to four—carcinoma, uterine fibrosis, idiopathic hemorrhage and endocervicitis. Since I first began the use of radium, nearly ten years ago, the conditions enumerated have been practically eliminated from the field of surgery insofar as I am concerned. I have found that better results can be obtained with radium without the dangers attendant on operation and prolonged stay in the hospital which usually follows a resort to surgery in these cases.

In my judgment there has been no greater advance in the treatment of any single disease than has been made by the use of radium in carcinoma of the cervix uteri, even where the disease has progressed beyond the incipient stage. Cases that were formerly thought to be hopeless are being cured with great frequency by the application of this method, and, in the incipient stage of the disease, I feel that recovery should amount to practically 100 per cent.

There is still some difference in the mode of application of radium, some operators preferring to use smaller doses successively repeated, but I think that the trend today is to use a massive dose at the first application. It is a well-known fact that tissues become radio-resistant and that the

*Read before the Section on Radiology at the Sixty-fourth Annual Session of the Mississippi State Medical Association, Jackson, May 13, 1931.

same result cannot be obtained by a second application as with its initial employment.

Radium acts on tissues in several ways, principally by destruction of embryonic cells without great damage to the fixed tissue cells and by obliterating the smaller blood vessels with the resulting formation of cicatricial tissue. It has been estimated that the gamma rays of radium are destructive to embryonic tissue for a distance of at least four inches if left *in situ* for a sufficient length of time, care being taken to exclude by screening the *alpha* and *beta* rays which are destructive of nearby tissues.

In cases of carcinoma, we needle the cervix or its remains, using not less than 50 mgs. in this manner and using 50 mgs. in capsule in the uterine cavity for a minimum dosage in moderately advanced cases of not less than 5000 mg. hrs. These patients are instructed to report for examination at the expiration of five or six weeks and are kept under observation at intervals of two or three months for a period of at least three years.

To one who has not before seen the extent to which a carcinomatous cervix will clear up after the use of radium, the result appears almost miraculous. Cases in which the cervix has been practically entirely destroyed and in which the vaginal vault seems to be nothing more than a disintegrating crater will have become perfectly smooth and healthy in appearance and covered over by apparently normal mucous membrane at the expiration of from six weeks to two months. Offensive discharge and bleeding have stopped and the patients uniformly have gained materially in weight and strength. Of course, there is present the discharge which always follows the application of radium.

Used in the dosage mentioned above, we have not found it necessary to make a re-application in one per cent of our cases. Of course, in advanced cases where there

is metastasis into distant organs, nothing can be hoped for in the way of permanent cure from this or any other method, but in this type of case we can at least do something for the comfort of the patient by relieving pain and stopping hemorrhage and foul smelling discharges.

In the treatment of uterine fibrosis, the application of radium should be limited to uteri of comparatively moderate size. The large fibroid which has risen out of the pelvic cavity, particularly of the nodular type, is best treated by hysterectomy, though in some cases in which surgery was contra-indicated we have been astonished at the rapid shrinkage in the size of the tumor and the complete cessation of all symptoms. I recall one case in particular of a tuberculous patient suffering from severe hemorrhage and who it was not thought expedient to operate upon, on whom we used 5000 mg. hrs. of radium for the relief of the hemorrhage alone, not expecting any great reduction in the size of the tumor. This growth reached to the level of the umbilicus. Four months after the administration of radium I saw this patient again and was astounded to find that the uterus had been reduced in size to less than that of the normal organ. The tumor, however, was a leiomyoma and not a true fibroid, nor do I think had it been the latter that such a result would have been possible.

Smaller growth are usually given a dose of from 2500 to 3500 mg. hrs. of 100 mgs. in two or three capsules which generally suffices to stop all hemorrhage and reduce materially in size the fibromatous uterus of moderate size.

In dealing with what, from want of a better name, Dr. Howard Kelly denominates "idiopathic hemorrhage," usually found in young girls, one has to be very careful with the amount of radium used. This condition seems to have no demonstrable pathology but for some unaccountable reason, these patients have hemor-

rhages ranging from a moderately severe flow to others which are so severe as to threaten life. Here it is not desired to bring about a complete cessation of the menstrual flow and the use of a large amount of radium would interfere with the proper functioning of the ovaries and result in sterility, therefore, it is better to feel one's way along, giving too little rather than too much radium and repeating its application should the desired result be not obtained. I would suggest that an initial dose be employed of not over 500 mg. hrs., the subsequent amount to be used to be determined by the result obtained. The judicious application of radium in this manner will nearly always regulate the menstrual function so that the menorrhagia will be controlled without serious interference with the child-bearing function.

Endocervicitis with its resultant leucorrhoea, often extremely annoying to the patient, has been subjected to many different forms of treatment with varying measures of success. The leucorrhoeal discharge comes from the ovules or glands of Naboth which are situated rather deeply in the uterine wall about two-thirds the way up the cervical canal from the external os. From the situation of these glandular structures one can readily see that the treatment by means of cervical applications, douches, etc., is practically futile and that only such measures as will destroy these glands promise success. The surgical removal is a rather difficult technical procedure and their destruction by cautery, either actual or electric, is uncertain. The insertion of radium needles sufficiently long, either ten or twelve and one-half mgs. directly into the cervix, permitting them to remain for a period of six hours, practically always results in the obliteration of these glands with a cessation of discharge. In using the needles inserted directly into the tissue without screening, we do not entirely exclude the *alpha* and *beta* rays but as destruction of

tissue is desirable here, any further screening than that supplied by the needles themselves is unnecessary.

I have avoided as far as possible any technicalities with reference to radium or any prolonged description of the effects of radiation on tissues. I desired merely to present some practical points for your consideration in ailments which are so commonly encountered in general practice.

DISCUSSION.

Dr. E. C. Parker (Gulfport): Make an early diagnosis. The earlier you get the radium, the better the result. Do not take the patient's word for anything. Insist on an early examination, and get in an early treatment.

Uterine prolapse was not mentioned by Dr. Barksdale. Women past thirty years of age who have old lacerations should be examined frequently to get them at the beginning.

Dr. M. D. Ratcliff (McComb): I have treated with irradiation, several causes of fibroids of uterus, and I am just wondering if it was not the too rapid action of rays on large tumors that caused them to break down and serve as a focus of infection which caused some of these patients to suffer attacks of multiple neuritis. Radium in cervical applicator well screened and placed in the cervical canal and giving about four hundred milligram hours in simple endocervicitis will produce excellent results in many cases.

Dr. Wm. F. Hand (Jackson): It is appalling when we stop to think that we have approximately one death in every eight caused from cancer. A great number of these deaths are due to malignancies of the uterus. The most important factors that influence prognosis and end results in uterine cancer are early diagnosis, histological characteristics of the tumor, and the choice of treatment. Early diagnosis, to my mind, is of the utmost importance. Cancer must be diagnosed early and treated promptly in order to obtain the results we so desire. Dr. Healy, of the Memorial Hospital, New York City, divides his cases according to the classification of Broders, that is, into four groups, the first group being least malignant and most radio-resistant, while group four is the most malignant and most radio-sensitive. Bearing out the statement of the essayist in regard to the fact that surgery is not the best procedure, especially in the cases of even the moderately advanced malignancies of the uterus, I bring to your attention facts as brought out by Dr. Healy in reporting a large number of cases. He says that under surgi-

cal treatment nine and one-half per cent of the cases remained well for five years, whereas under radiation therapy 66 per cent remained well for five years. The same results have been found at the Mayo Clinic. Under surgical treatment the grade four cases gave uniformly bad results, as reported by Mahle. On the other hand, under radiation therapy 50 per cent of their cases remained well at the end of five years. This was an extremely interesting and timely presentation and should impress upon our minds the necessity of an early diagnosis and of prompt treatment."

UTERO-SALPINGORRHOPHY WITH LIPIODOL.*

J. P. WALL, M. D.,
JACKSON, MISS.

In speaking on this subject, no attempt will be made to bring to you anything of a novel nature or to augment the literature of a subject, already rather voluminous, but rather will there be entertained the hope that attention may be redirected to a procedure, of considerable diagnostic value, no little therapeutic efficiency and rather simple of execution.

There is no reason to believe that sterility is any greater today than it was in the past, yet we have learned that the woman is not entirely to blame for childless marriages, but that the fault lies with man in at least twenty-five per cent of the cases.

While sterility *per se* is not a menace to life, it does play a most important role in marital infelicity.

There are two great divisions of sterility in the female:

A.—Absolute;

Pregnancy is impossible because of genital defects.

B.—Relative:

1—Congenital:

Though some cases are amenable to treatment, as a general

proposition very little can be done for these cases.

2—Functional:

These cases may be greatly helped by:

1—Correcting physiological derangements and regulation thereof.

2—Dietetic regime.

3—Control of psychic factors.

3—Acquired:

Of this form infection of the fallopian tubes is the most common.

In the normal fallopian tube there is a peristaltic wave, beginning at the fimbriated extremity and passing mesially every fifteen seconds, and when this wave is hindered, it is because of pathology in the fimbriated extremity of the tube in 75 per cent of the cases. Therefore, for our study we shall confine our remarks to the fallopian tubes for the greater part.

There are two recognized methods for determining the patency of the fallopian tubes—namely the method of Rubin and the injection of an opaque medium into the uterus and then into tubes and out into the peritoneal cavity—if the tubes are patent.

The Rubin test is, briefly, the passing of some inert gas, such as CO₂ through cannula inserted into the uterine cavity, the gas passing up through the uterus, and out of the tubes into the peritoneal cavity, if the tubes are patent. A stethoscope placed over the lower abdomen will enable the examiner to distinguish a characteristic whistling sound, as the gas passes from the narrow lumen of the tube out into the comparatively wide space of the peritoneal cavity.

This sound is positive evidence of the patency of the fallopian tube, but does not locate the site of the stricture, if one ex-

*Read before the Section on Radiology at the Sixty-fourth Annual Session of the Mississippi State Medical Association, Jackson, May 13, 1931.

ists, is attended by considerable pain throughout the abdomen as it becomes distended with the gas, and some times it is necessary to run the pressure as high as 300 mm. of mercury to force the air through.

Of the opaque methods used, we have confined our efforts to the use of lipiodol, which is a 40 per cent emulsion of iodine in poppy oil.

This method is very simple; cleansing the cervix of the uterus in the usual surgical manner, inserting the neck of the cannula into the cervix, and with a pressure of 40 to 100 mm. of mercury (dependent upon the resistance encountered) the lipiodol to the amount of five c.c. is slowly driven home; and then without moving the patient a roentgenogram is taken of the pelvic area; and it is best to retake the roentgenogram at the end of twenty-four hours to determine how much of the solution has passed into the peritoneal cavity and whether the uterus has emptied itself by gravity.

No serious accidents have occurred from the employment of this procedure, though Witner has reported the rupture of a fallopian tube. However, no ill effects followed this accident.

Occlusion of the fallopian tube may occur any where along its course, but the most frequent site is the isthmic portion, and as with all inflammatory processes, the restoration of the lumen of the tube is dependent upon the absorption of the inflammatory products, and the fact that the fimbriated extremity is not adherent to the ovary and is at least partially open.

There are certain contraindications to its use:

1. Recent hemorrhage.
2. Inflammatory processes that are not completely quiescent.
3. Active inflammation or malignancy involving the cervix.

4. Previous intrauterine interventions.
5. Ectopic or intrauterine gestation, in which a therapeutic abortion is not desired.

6. Infected cervical or uterine polyps.

There are distinct advantages to its use:

1. Is harmless and is opaque to roentgen-rays.
2. Locates site of stricture.
3. Shows deformities, such as uterus bicornis, etc.
4. Shows fibroids encroaching upon the lumen of the uterus, giving a filling defect.
5. The slow liberation of the iodine from the lipiodol is of therapeutic effect, as subsequent pictures show definite improvement.
6. Certain percentage of these cases subsequently become pregnant, and sometimes so soon after the treatment, that injections and pregnancy seem to bear a casual relationship.
7. The lipiodol is absorbed from and disappears from the peritoneal cavity within seven to ten days and from the uterus by gravitation in one to two days. However, if the fimbriated extremities of the tubes are sealed, the lipiodol may remain for several months, even becoming inspissated.
8. There are some immediate results possible:
 - a. Mucus plug may be dislodged from the cervical canal, by the mere introducing of the cannula.
 - b. Mild agglutinations of the folds of the tubal mucosa may be separated.
 - c. Tortuous tubes may be straightened, especially of the infantile type.
 - d. Inspissated mucus may be dislodged from a narrow to a wide

part of the tube, and thus open the way for the descending ovum and ascending spermatozoon to meet.

CASE REPORTS.

Case No. 1. White; aged 36 years; married eight years; never pregnant; no distinct venereal history, though husband is the kind of man who philanders. Notice that the tubes are narrowed at the isthmus and along the entire tract, till the fimbriated ends are reached, and that no lipiodol enters the peritoneal cavity. Obviously the tubes the sealed and pregnancy is impossible under such conditions. Three months later was operated upon and bilateral pus tubes removed; thick yellowish pus, with some inspissated lipiodol in the tubes.

Case No. 2. White; aged 33 years; married six years; never any pregnancy; no history of genital infection; but husband gives history of left epididymitis nine years ago. The left tube is elongated, but the lipiodol emerging from the fimbriated extremity, while on opposite side the tube is curled upward and backward onto the uterus, but is patent. So far as this woman is concerned she could become pregnant, yet with a husband giving such a history as is his, the chances of her becoming pregnant are rather slim.

Case No. 3. White; aged 26 years; married seven years; never pregnant. No history of infection on part of either mate of this union; yet the right tube is snarled and curved up on itself and adherent to the uterus, while the left tube is freely open as shown by the amount of lipiodol that has trickled through the tube and out into peritoneal cavity.

Case No. 4. White; aged 38 years; married 16 years; never pregnant. Husband has had gonorrhea and intracellular Gram—negative organisms have been obtained from vaginal smears of this woman. Slide shows that some of the lipiodol does percolate through the right tube, but left tube is snarled and adherent to back of uterus, with very little of the lipiodol escaping from the tube. Three months after injecting this woman's genital tract this woman became pregnant, bore a still child, and has subsequently borne a live child.

Case No. 5. White; aged 34 years; married 10 years; never pregnant. No history or suspicion of genital infection. Slide shows the elongated right tube, lumen patent and lipiodol has trickled through the fimbriated extremity, and area is adherent to the ovary's surface, and the left tube is elongated and somewhat constricted. With such a picture the probabilities of pregnancy are indeed slim.

Case No. 6. White; aged 32 years; married 12 years; never pregnant; operated upon and was told that the right tube and ovary were removed along with the appendix; menstruates regularly. It is very apparent why this woman has not become pregnant, and also shows how essential records are to the operating surgeon; for you can readily see that both tubes have been removed, whereas the surgeon's memory was to the effect that only one tube had been removed.

Case No. 7. This case is the same as No. 4, but taken three years later. The examination was to determine whether the tubes remained patent. Instead of passing five c.c. of lipiodol into the uterus, 20 c.c. were used, and from the way the opaque substance is smeared along the lumbar folds, you can see that tubes did remain patent. This woman has borne a healthy baby since then.

Case No. 8. This woman was supposed to be a full term pregnancy, there being some doubt as to whether it was intrauterine or extrauterine; the uterus was injected with lipiodol; instead of showing up the usual picture, you will see that there is a large mass here that was correctly diagnosed by Dr. Van Ness as being an intrauterine tumor, while there is a mass to the outer side of the uterus, in which you can see two teeth. Operation proved that the extrauterine mass was a dermoid tumor, while in the uterus was a mass diagnosed as placenta, but no foetus was found. Hysterectomy and oöphorectomy was done, and woman has remained well.

This method of injecting the fallopian tubes is of great value in that it shows:

1. Development anomalies.
2. Tubal conditions or processes leading to sterility.
3. Straightening out of the kinks in the tubes, and rendering subsequent pregnancy probable.
4. Condition of tumors as to whether they are intra or extrauterine.

DISCUSSION.

Dr. E. B. Van Ness (Jackson, Miss.): There is just one thing that I would like to emphasize, and that is the careful ruling out of pregnancy before the injection of lipiodol. I remember one patient referred for lipiodol injection to determine the cause of sterility. After injection, we were able to make a diagnosis of pregnancy. Abortion followed, but she later had a baby.

A NEW ANASTOMOSIS BUTTON FOR GASTRO-INTESTINAL SURGERY.

JAMES THOMAS NIX, M. D.,*

NEW ORLEANS.

Anastomoses of the gastro-intestinal tract, making use of the Murphy button, when done by those surgeons skilled in the technic, admittedly give a low mortality. On the other hand, as W. J. Mayo says: "Nearly 20 per cent of buttons are imperfect and dangerous." Every button should be tested before it is used."[†]

For this and other reasons, only a small number of good surgeons make use of this most valuable instrument.

Other buttons and mechanical devices have been suggested, as the decalcified bone bobbin of Robson and Allingham, the suggested aluminum ring of Gould, the Lap'ace forceps for lateral anastomosis, and the principle of the elastic ligature as pictured by McGraw. Each has had its advocates, but after years of trial and weeding out, only the Murphy button holds any appreciable place. Few surgeons at this time understand its use, and, in the writer's opinion, still fewer give it the established place it should command.

Bearing these facts in mind and at the same time estimating as invaluable the worth of the Murphy and other buttons, a series of experiments in intestinal anastomoses have been carried on.

One of our prominent local surgeons remarked a few days ago that he seldom uses the Murphy button because, during his service as House Surgeon of the Charity Hospital, observing the work of many skilled operators, "he followed too many patients to the dead house." On the other hand, Dr. Rudolph Matas invariably uses a small round button, dropping one-

half in each segment of the jejunum when doing a gastro-enterostomy.

DESCRIPTION OF THE BUTTON.

The button herein described is humbly submitted to the profession in this preliminary report. There are still improvements to be made and it is not offered as final in its present form. However, it appears to be simple in its construction, sound in principle, durable, safe, easy to apply, and adjustable to meet various types of anastomoses.

The detachable stylus for aseptically threading the bowel on the button without sutures, the compression feature afforded by rubber gaskets of different elasticity, the simple locking device with right angled ratchet thread which does not fail, and the simplicity of construction and replacement are especially to be stressed.

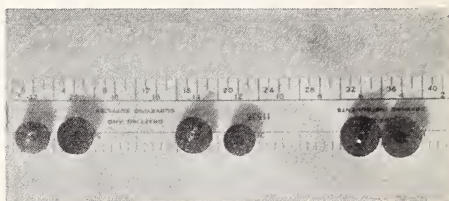


Figure A. Buttons 1, 2, and 3, made up of black sponge rubber on the male unit, and faced with a metal washer. The female unit is composed of hard red rubber with a cylindrical opening bored through. The bowel is fixed on the female unit with small sharp pins one-eighth of an inch in length. Button Number 3 carries a thread on the shaft of the male unit and a U wire running through the female unit around the cylindrical opening.

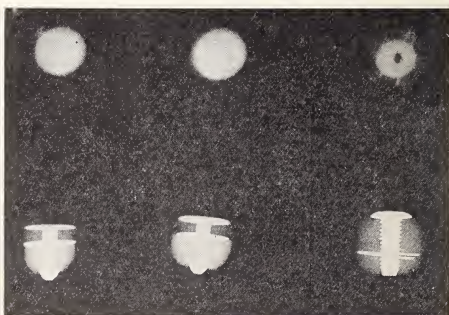


Figure B. Antero-posterior and lateral roentgenograms of the buttons described in Figure A.

*From the Department of Surgery, Louisiana State University Medical Center, and the J. T. Nix Clinic, New Orleans.

[†]DaCosta, *Modern Surgery*, Ninth Edition, p. 1080.)

Figure A shows a photograph of a few of the buttons tried in our experiments. Figure B shows roentgenograms of the anterior-posterior and lateral views of Figure A.

The first two show rubber gaskets of different densities with a metal washer between, which covers the softer sponge rubber on the male unit. The tip of the plunger of the male unit is arrow-shaped and is forced through a cylindrical opening in the hard rubber of the female unit. This type, being difficult to operate, was found unsatisfactory and was promptly discarded.

Button number 3 shows a screw thread in the metal of the male unit and a U wire passing through the female unit around the cylindrical opening. The U wire locked well, but had a tendency to slip and did not give sufficient compression. This was used in one experiment for lateral anastomosis of the colon of a rabbit. The button was not passed and after twenty-one days was removed. The anastomosis was complete and with slight finger pressure the button was forced through the stoma. It probably would have passed naturally in a few days.

Button number 4 employed the principles of an outer and an inner sleeve. Spring brass was used. The thread of the inner sleeve was screw type except that it was not the customary inverted V thread, but the long slope of each thread formed the hypotenuse, and the descending limb, the upright side of a right angle triangle. Technically, this part of the male unit is called the threaded-flanged nipple. Correspondingly, in the end of the outer sleeve, a hook dipped down at right angles to lock in the thread of the male unit. The female sleeve was slit longitudinally in seven or more equal parts so as to give it a spring effect and permit easy insertion of the male into the female sleeve. Technically, this part of the female unit is called the split-spring-flanged nipple. On the male side, hard red rubber was used and soft

sponge rubber on the female side. A metal washer covered and protected the face of the sponge rubber gasket of the female unit. The rubber gaskets used for all experiments were cut from large pieces of sheet rubber and, although entirely satisfactory, the cut sides can be cured and the gasket made more uniform and durable at nominal cost when ordered according to pattern and scale from the Goodrich or some other rubber company.

Button number 5 is the same in principle as button number 4, with the self-threading, non-suture device added as a stylus to fit in and close the locking end of each half of the button. On the female side, the stylus is threaded and snaps in as the male cylinder would. It is unscrewed after the bowel is threaded on the button. On the male side, the stylus has a slightly conical surface ground to fit snugly into the male end of the button. A hip on the stylus carries the bowel or stomach over on the screw threads. The stylus is then turned back and easily removed from the button. The two units of the button can now be readily snapped together as tightly as desired. Interrupted Lembert sutures may or may not be placed around the button for additional security. This was not found necessary in lateral anastomoses of our animal experiments.

Figures 1 and 2 show the disassembled button. Figure 3 shows the halves of the button assembled, with the stylus detached. Figure 4 shows the completely assembled male and female units. Figure 5 shows the snapped buttons as they appear after

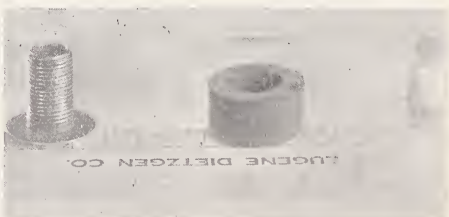


Figure 1. Male unit disassembled, showing threaded metal sleeve, hard red rubber gasket, and stylus point.

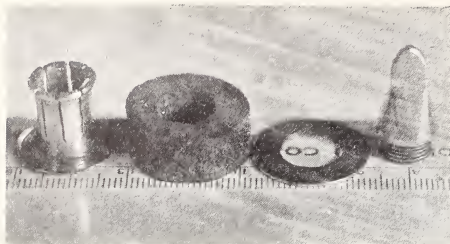


Figure 2. Female unit disassembled, showing metal sleeve with right-angled hook on end, longitudinal slits extending nearly the full length of the sleeve, black sponge rubber gasket, metal washer to face sponge rubber and threaded stylus point.

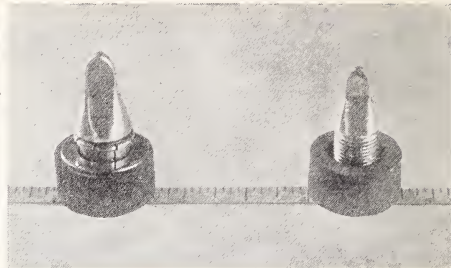


Figure 4. Button Number 5. Completely assembled female and male units.

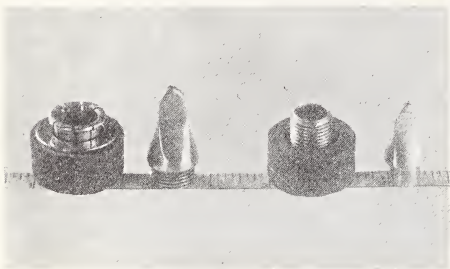


Figure 3. Button Number 5. Assembled female and male units with stylus points detached.



Figure 5. Large and small buttons that have been successfully passed, the larger one used for the gastro-enterostomy in the patient described in this article, and the smaller one for an entero-enterostomy, in a rabbit.

The smaller button, described as Button Number 4, is the same in principle as the larger one with the exception that no styli were used with this button in making the anastomosis. The styli were developed because of the difficulties usually encountered in suturing the bowel around the button.

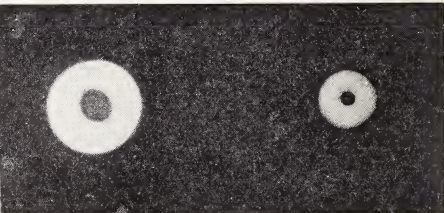


Figure 6. Roentgenograms showing antero-posterior and lateral views of buttons in Figure 5.

having been passed; the larger one in the human, and the smaller one in a rabbit. The sponge rubber gasket is slightly swollen, otherwise there is no visible nor detectable change in the physical appearance or character of the rubber. Figure 6 is a roentgenogram showing antero-posterior and later views of the button in Figure 5.

EXPERIMENTAL.

Many experiments were conducted on rabbits and dogs, on all of which accurate

reports, photographs and radiographs have been kept. The number 5 button was released in every instance, making a strong and adequate anastomosis, and expelled in all but one case, a gastro-enterostomy. In one dog, after an entero-enterostomy, it was passed in four days; in a rabbit, after a colostomy, the button was passed in twenty-four days, representing the shortest and longest intervals that the button remained in the intestinal canal. In the case herein reported, the button was released in

six days, completing a satisfactory gastro-enterostomy, but it was over-sized and could not pass through the intestines of the dog and dropped back into the stomach. This was demonstrated by roentgen-ray studies of the button in the stomach showing varying positions. On subsequent removal by gastrotomy there was noted the almost negligible action of the stomach juices on the soft rubber gasket. In all probability, the button could have been sent through the intestines by purgation had it been desired.

Experiment Number IV. May 18, 1931: Dog, female, weight 8.9 kilograms. Anesthetic, ether. Operation, gastro-enterostomy, using button Number 5.

May 19, 1931: First post-operative day, dog droopy and weak.

May 20, 1931: Second post-operative day, no apparent discomfort.

Roentgen-ray pictures taken on May 24 and 27, 1931, show the button in the same place. The dog is apparently comfortable and happy.

May 30, 1931: Twelfth post-operative day, roentgen-ray shows the button released and in the stomach. This was a large button and had to be forced into the small bowel during the operation. The button was permitted to remain in the stomach until June 1, 1931, when it was removed by gastrotomy. The integrity of the button was unchanged. It might still have passed, but the diameter of the button used was much larger than the diameter of the lumen of the small bowel.

Figures 7 and 8 show the button in different positions in the stomach. Figure 9 shows a healthy dog on the thirtieth post-operative day. The dog is still alive and frisky, July 2, 1931.

Round Murphy buttons occasionally drop back into the stomach following gastro-enterostomies. In one of Dr. Murphy's cases, the button was not passed until the eighty-fifth post-operative day. This objection was overcome in the oblong Murphy button and is well protected against by using a larger sized oval gasket on the intestinal side of button Number 5.

The large number of pictures necessary to properly present this article does not permit of further animal illustrations.



Figure 7. Case Number IV. Roentgenogram taken on May 24, 1931, sixth post operative day. Button still in stomach.



Figure 8. Case Number IV. Roentgenogram taken on May 27, 1931, ninth post operative day. The picture shows the button in a different position in the stomach compared to Figure 7. It evidently has been released and is free in the stomach.

OPERATIVE REPORT.

The button has been used successfully in the human in two cases, the first one being herewith reported:

Identity: Mr. A. H., white, male, aged 55 years, weight 176 pounds.

Family History: Unimportant.

Past History: Patient has been in excellent health except for frequent soreness of the stomach and mild indigestion. He would often take soda for relief.

Present Illness: In May, 1931, the patient was taken acutely ill at his home in Southern Louisiana with extensive hematemesis. This recurred after six hours and he was sent in an ambulance to Hotel Dieu, New Orleans, sixty miles away. His condition was critical on admittance. Pulse was feeble, thready; volume poor; rate 140; blood pressure, 80 systolic, 65 diastolic. Blood of donors was matched with his for transfusion and 500 c.c. of whole blood were given by direct transfusion, using the Jube apparatus. Steady and rapid improvement followed with no hemorrhages.

Operation: June 2, 1931, gastro-enterostomy, using button Number 5. A long median incision from the ensiform to the umbilicus was made. Exploration revealed a hard circumscribed ulcer



Figure 9. Case Number IV. Picture taken on June 18, 1931, thirtieth post operative day. The dog made an uneventful and rapid recovery, showing no ill effects from the operation. He is still alive and happy.

about three-fourths inch across in the second portion of the duodenum near the pancreas. The surrounding bowel was healthy. There were no mesenteric glands palpable and the peritoneum of viscera and abdominal wall was apparently normal. The ulcer was quiescent and because of its location was not disturbed. A short linear incision, one-half inch in length, was made on the anterior wall of the stomach, and the complete male unit with the stylus dropped in. The jejunum was now brought up under the transverse mesocolon and similarly treated, dropping the female unit in its lumen. Through the usual opening in the transverse mesocolon, the posterior wall of the

stomach was delivered in the larger abdominal cavity and the halves of the button in the stomach and jejunum snapped together very easily.

Progress Notes: Convalescence has been most rapid and uneventful. There was little or no operative distress. Hypodermoclysis of normal saline solution, 500 c.c., was given every six hours for three days, with one dram of water every half hour orally. Nutritive enemas of coffee, three ounces; whiskey, two ounces; saline solution, five ounces, every six hours. After the third post-operative day, sodium phosphate, one-half dram in six drams of water, was given every morning.

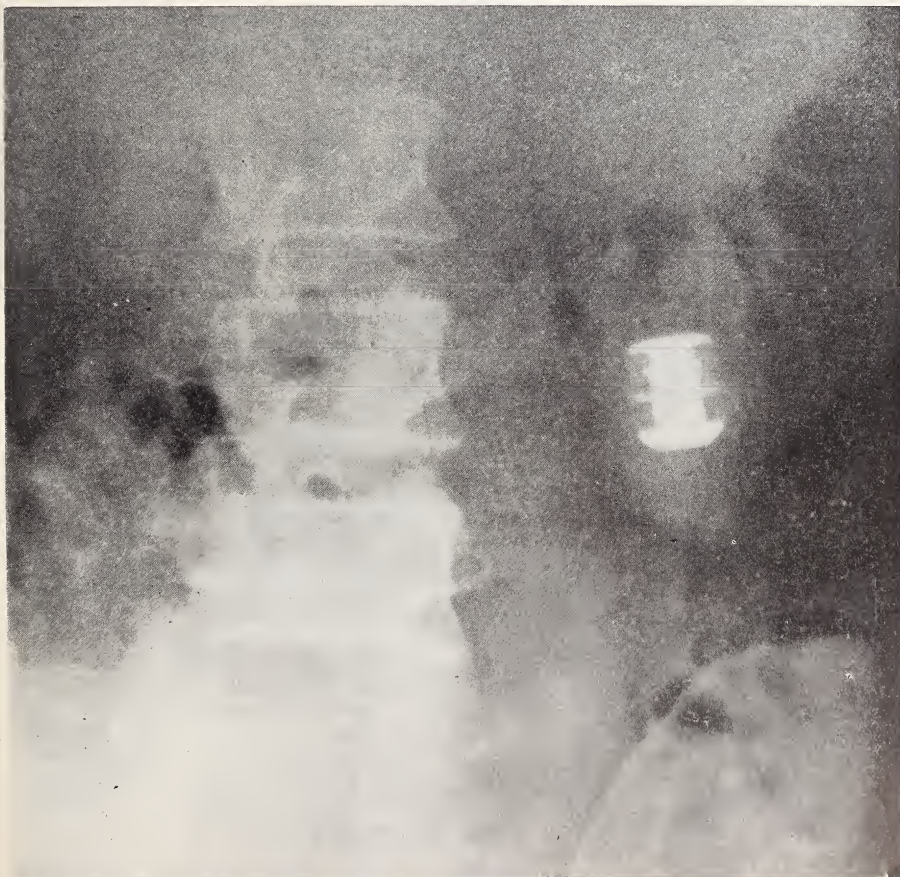


Figure 10. Mr. A. H., operation June 2, 1931. Roentgenogram taken June 6, 1931, showing lateral view of button. In this instance lower metal cap of the female unit was made heavier to insure the button's dropping into the small bowel. Notice the short distance of the metal washer from lower end of button compared to the much greater distance of metal washer from the upper end of the button. This represents the compression of sponge rubber secured in snapping the button, the sponge rubber gasket being below the metal washer, and the hard rubber gasket being above.



Figure 11. Mr. A. H., June 10, 1931, eighth post operative day. The patient is very comfortable. There is no distress whatever.

The button passed on the twenty-second post operative day, June 24, 1931. The patient is feeling as well as ever before. He is still in the country and a final picture will be taken when he returns.

June 7, 1931: Fifth post-operative day, surgical liquids, three ounces every two hours; nutritive enemas discontinued.

June 9, 1931: Seventh post-operative day, full liquids, four ounces every two hours.

A roentgenogram was made on the seventh post-operative day. The patient was very comfortable. There was no untoward symptoms.

Bowels moved daily after the fifth post-operative day; no blood in stools, no discomfort.

June 14, 1931: Twelfth post-operative day, patient given semi-solids, as in ulcer diet, combined with alkaline powder after meals.

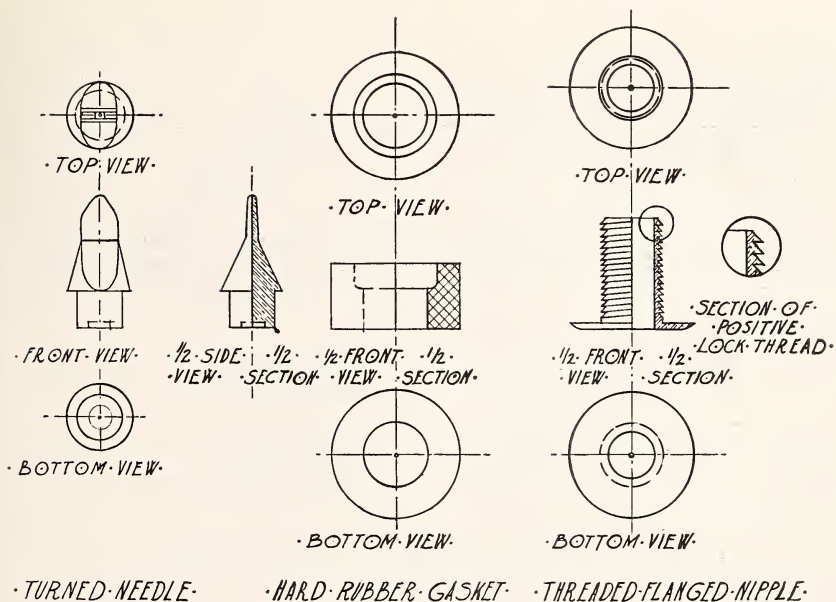
June 21, 1931: Nineteenth post-operative day, patient was discharged from the hospital with instructions as to observing stools for the button and symptoms which might accompany its transit through the bowel. On June 25, 1931, the button was returned by special delivery mail with the following letter:

"You will enclosed find under separate letter the button you had ask me for. I passed same

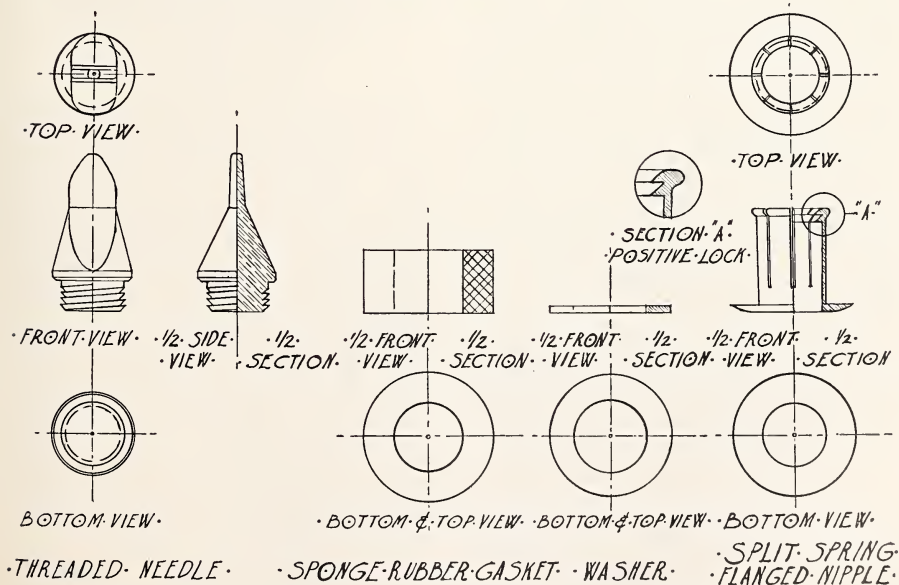
yesterday noon (June 24, 1931), without any pain nor colic. I really did not know I had pass same until I found it so we clean and put it in hot water. I am feeling well, etc., etc., . . ." The patient will return in four weeks. He is apparently well on the road to a complete cure.

SPECIAL FEATURES OF BUTTON NUMBER 5.

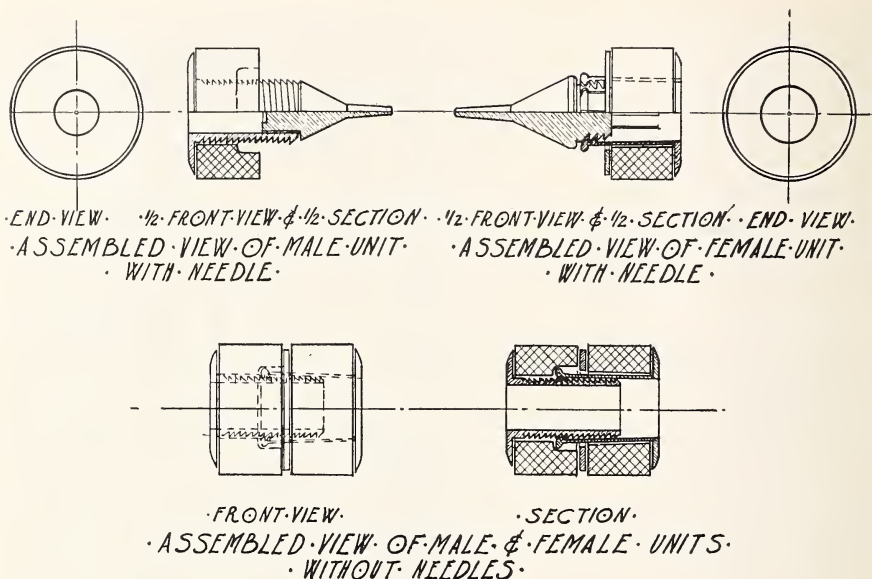
1. The core or the union of the male and female sleeves is simple, safe, works smoothly, and can not get easily out of order.
2. By using larger metal washers and larger rubber gaskets with the same core and same stylus points, different sized openings can be made. By this means, three different sized cores with many varied sizes of metal washers and rubber gaskets, the opening of the anastomosis can be enlarged or reduced to any size desired.
3. A slightly larger or an oval rubber on one side will, if there is any doubt in the mind of the surgeon, insure the button's dropping to the side of the larger washer.
4. By using the stylus and closing the open end of each unit, an aseptic anastomosis, without sutures, can be made as the punctured bowel or stomach fits over the stylus and on the sleeve as tightly and snugly as the glove on a finger. The stylus, or needle, is removed from each half just before approximating the male and female units in order to snap the button.
5. Without the stylus the button can be used as a round Murphy button.
6. Reconstruction of the canal can be rapidly and safely effected after an extensive resection, if one-half of the button is dropped in each open end.
7. The right angle or positive lock thread on the male sleeve and the right angle or positive look on the female sleeve insure absolute safety.



DETAIL OF MALE UNIT



DETAIL OF FEMALE UNIT



8. The experiments seem to prove satisfactorily that the sponge rubber gasket with metal faced washer is entirely safe, the integrity of the rubber being little affected by long contact with gastric and other digestive juices. If one so desires, a metal washer with one-eighth inch collar dropped down from its outer circumference capping a spiral steel spring of the same diameter, could be placed over the split sleeve of the female unit, in this way, deplacing the sponge rubber gasket with metal washer and spring.

Up to this time the button has not been used for end to end intestinal anastomoses where slight modifications may be required. Experiments a'ong this line are now under way, on which we hope to report later.*

*For the hours of intensive effort and hard labor in overcoming the defects and developing the mechanical simplicity and efficiency of this button, I am indebted to Mr. C. F. Demandre of the Surgical Supply Company of New Orleans, who has made all of the buttons used and without whose help this work could not have been accomplished.

THE DIAGNOSIS AND SIGNIFICANCE OF SPLENIC ENLARGEMENT.*

J. BIRNEY GUTHRIE, M. D.,†

NEW ORLEANS.

The spleen is not an organ that carries on its function in a manner that can be watched with ease. We have none of the thrill in examination of the spleen that comes to us in the examination of the heart and lungs, whose location, variations in density or size, mobility and sounds incidental to their functions, gives us daily experiences of satisfaction as we search for abnormalities. The spleen does not usually make a noise; but like many other members of a community, it functions silently and in seclusion for the general welfare. Changes in its volume are, by our present methods of examination, not usually perceived until the change in volume

†From the Department of Medicine, Louisiana State University Medical Center.

*Read before the Louisiana State Medical Society, New Orleans, April 14-16, 1931.

has become manifest to a very considerable degree.

The spleen lies normally in the abdomen in contact with the diaphragm and sharing in its movements and those of the stomach. Its long axis is in line with the tenth rib. It is inclined obliquely in two directions to the body axis—"from above downward and outward and from above downward and forward" (Cunningham). Its inner end approaches the median plane of the body to within 3.7 c.m. Its outer end about reaches the mid-axillary line. (Quain) In the adult it is about 12 c.m. in length, 7.5 c.m. in width and 3 c.m. in thickness. It is supported by ligaments derived from the peritoneum, the lienorenal and the gastrolenal. It rests on the phrenocolic ligament. The pedicle of the spleen likewise acts as a further support. The spleen also is in relation with the left kidney, the stomach and the tail of the pancreas.

Because the spleen may be removed in a normal animal with a fairly prompt return to normal health, there were some who have regarded the organ as perhaps vestigial, having served its purpose in the erythrocytic hemopoietic system in fetal life. The production of red blood cells by the spleen in adult life is doubtful. There, however, can be no doubt that the destruction of red blood cells occurs within the spleen itself, or elsewhere, as a result of a lowering of resistance of the erythrocyte in its passage through the spleen by a substance elaborated by the spleen and also as the result of actual phagocytosis in the spleen by the endothelial cells of this organ. This is easily observed in tissue examination together with the deposits of iron bearing compounds (hemosiderin) resulting from this phagocytosis. It is believed that iron resulting from hemolysis is stored in the spleen to be again utilized in future erythrocytic hemopoiesis, the iron of the food being stored in the liver. The elaboration of a substance activating the bone-

marrow has been attributed to the spleen. Fresh spleen extract injected into the peritoneum of animals after splenectomy has been found to bring about an increase in the red cell count. After splenectomy there is a large loss of iron amounting to 11 to 18 m.g. daily.

To the spleen has been attributed the production of uric acid and xanthin; because of the finding of the enzymes (adenase, guanase and xanthin oxydase) whose function serves to convert the nucleoprotein bases into uric acid.

The structures of the spleen are regarded as forming an important element in a system, called by Aschoff the reticulo-endothelial system. This is composed of the liver, spleen, lymph nodes, bone-marrow and hypophysis, whose members function in harmony and which collectively possess a role of great importance in the reaction of the body to infections. The great problem of immunity involves the study of this system. Associated with immunity is cell-allergy and its almost unlimited field for future investigation.

The spleen is made up, in considerable part, of smooth muscular fibers whose contraction gives the organ a rhythmic reduction of volume. Muscle fibers accompany the trabeculae in the spleen. These have the power to contract intrinsically and also under the stimulus of sympathetic nerve fibers from the coeliac axis. This rhythmic contraction empties the organ of blood and its elasticity allows refilling during relaxation. The interval between contractions of the spleen has been determined as one minute in the dog. Thus we see an intrinsic self-contained circulatory apparatus that exists nowhere else in the body.

One of the most interesting pieces of experimental work on the spleen published in recent years is that of Barcroft¹ who measured the changes of splenic volume under different conditions by two methods: (1) Placing small metal clamps around the

edge of the organ, he returned it to the abdomen and closed the cavity, subsequently studying the animal by radiographs. (2) The second method consists in externalizing the spleen and studying the actual size of the organ after the recovery from the operation and under controlled conditions. He was thus able to confirm the previous observation that exercise and the process of digestion were accompanied by contractions of the organ. Of this work, Barcroft says "By either of these methods large alterations of volume of the organ may be seen rapidly to take place. So large indeed are they as to convince the observer that the spleen may, on occasion, contain perhaps one-fifth of the whole blood volume."

A most interesting part of Barcroft's work was an attempt at co-ordinating contractions of the spleen occurring as the result of artificial bleeding or exercise in animals with the subsequent increase in tissue blood-flow. The factor 10 has been determined by other investigators and may be used as a multiplier. If for example, the dog's spleen, in contraction, returns 100 c.c. of blood to the general circulation, the blood flow may be estimated by multiplying this amount by 10, thus increasing the general blood flow by 1000 c.c. or 1 Liter. The direct method of measuring the externalized spleen and calculation of resultant circulation by using the factor of multiplication constitutes a method which gives us a new concept of the "Buffer" function of the spleen which adds a fascinating chapter to the study.

Hitherto, methods of study have been confined to tissue-examinations by microchemical methods, before and after splenectomy, before and after injection of hemolytic substances of chemical or biologic origin; and tissue and blood examinations in disease associated always with cytologic determinations. Analyses of metabolic determinations have also contributed

their quota to our information regarding the spleen.

Pathology has furnished material and conditions which in the great majority of instances can not be produced experimentally, and it is to the clinic that we are forced to go for further study.

Osler in 1908² gave a classification of diseases which are accompanied by splenomegaly which we have appended below:

CAUSES OF SPLENIC ENLARGEMENT—OSLER.

1. In Children:

a. Disturbances of metabolism, rickets, amyloid disease.

b. Chronic intestinal affections.

c. Large but ill-defined group of intestinal disorders particularly in the tropics.

d. Pseudoleukemia infantum (von Jaksch's anemia).

2. Infections:

a. Syphilis.

b. Malaria.

c. Kala-azar and other forms of tropical splenomegaly.

d. Hodgkins disease.

e. Tuberculosis.

3. Blood Forming Organs:

a. Leukemia.

b. Pernicious anemia.

c. Chlorosis.

d. Hemochromatosis.

e. Polycythemic splenomegaly.

4. Cirrhosis of the Liver:

a. Syphilitic.

b. Alcoholic.

c. Hypertrophic cirrhosis of Hanot.

5. Hereditary and Familial:

a. Congenital acholuric icterus.

b. Constitutional disturbances, dwarfing, etc.

6. New Growths:

- a. Sarcoma.
- b. Primitive endotheliomata of Gaucher.
- c. Echinococcus.
- d. Schistosoma of Japan.

7. Splenomegaly not associated with any of above or with any known cause:

- a. Banti's disease with 3 stages.
 - (1) Simple enlargement.
 - (2) Splenomegaly with anemia.
 - (3) Splenomegaly with anemia, jaundice and ascites.

To the above must be added under Class 3. Hemolytic Jaundice; congenital and acquired; and under Class 6. Nieman-Picks disease, by some regarded as a sub-type of Gaucher's splenomegaly.

We have added a few captions to Osler's list that have been worked out since his publication; and shall not discuss these at length because of limitation of time.

In looking over case histories made under trained supervision of say, acute congestive heart failure, one is struck by the frequency of cases in which massive enlargements of the liver are described with no enlargement of the spleen. In some of these cases, time may not have been sufficient for fibrosis to occur in a liver or spleen as a sequel of the circulatory stasis. Yet if we are to judge peribulbar pressure by the size of that organ (liver), there must be a very considerable pressure on the portal radicles and in consequence a marked obstruction in the splenic vein. In all the experimental work on the spleen, venous obstruction has brought about a prompt increase in the size of the spleen. The classical bimanual palpation of the spleen has probably been attempted in these cases of acute heart failure and has failed to outline the lower extremity of a spleen which we may be sure is enlarged sufficiently to cause protrusion of the low-

er pole below the costal arch. We are frequently told how useless palpation is in the presence of ascites or other types of abdominal distension. Watching others work with such cases, the writer has often seen the lower and anterior edge even of a liver extending perhaps to the level of the umbilicus, missed in abdominal palpation because of accumulated, fluid, gas or exaggerated contracture of the abdominal muscles.

Percussion fails to give us our most accurate data on the size of the splenic outline. We must resort to palpation of the portion of the spleen which protrudes in inspiration below the border of the ribs, using percussion for the covered portion. Here the lightest possible touch, one which only dents the abdominal wall to the extent about 2 to 3 m.m. in depth, will often give us information that the classic bimanual method of palpation of the spleen fails to furnish. Our wish would be to get an approximation of the information that Barcroft obtained in his dogs. The writer believes that distrust of such a possibility makes for a lack of effort in this direction. A review of the literature of splenic rupture gives one a certain degree of caution in palpating a blood-distended spleen which has not been reinforced by fibrosis. No such case has to the author's knowledge yet been recorded.

The method of light palpation, first described by Pottenger³ is especially adapted to thoracic diagnosis. Pottenger briefly describes its use in an adaptability to abdominal diagnosis; but has not especially studied it in as applied to the spleen.

The technic the writer uses is to have the patient be near the edge of the bed on his back with legs slightly bent. The examiner seats himself near the left shoulder of the patient with the forearm in line with the hand and the examining fingers also slightly bent and the forearm parallel with the patient's body (re-

laxed). The left hand is first placed on the abdomen and moved about to reassure the patient against pain. The examination is begun in the right inguinal region and the fingers gradually drawn obliquely upward dipping in as the hand moves toward the tenth left costal cartilage. When a signal of resistance locates roughly the denser structure a pause for more minute investigation is made. When the "sounding" shows "density" a lateral movement to each side is made following the outline of the denser structure and finally deep respiration is invoked to determine motility in time with the diaphragm. Modifications of this technic serve for palpation of the entire abdomen. Heavier palpation is sometimes necessary to supplement the preliminary survey made by light touch and to note variations in texture and hardness.

CONCLUSION.

The results of physical examination of the spleen as usually done are not satisfactory, especially in the spleens of soft structure. A more perfect appreciation of the size of the spleen in clinical work would enable us better to direct the use of the hematologic and metabolic laboratory data and would increase the definiteness of study of some at least of the clinical conditions accompanied by enlargement of the spleen.

BIBLIOGRAPHY.

1. Barcroft, Joseph: *Am. Jour. Med. Sc.*, 79:1, 1930.
2. Osler, Wm.: *British Med. Journal*, 2:1151, 1908.
3. Pottenger, Francis M.: *Muscle Spasm and Degeneration in Intrathoracic Inflammations and Light Touch Palpation*: C. V. Mosby Co., St. Louis, 1912.

DISCUSSION.

Dr. W. A. Love (New Orleans): Preamble—To condense the physiology we have the following warranted deductions regarding the spleen:

1. Contractable Organ.

a. Systole and diastole equal about one minute. It enlarges during the digestion of food, reaching its height of enlargement in five hours and returns to its normal size in seven hours. In this it co-acts with the pancreas in its function of transforming trypsinogen into trypsin.

2. It acts as, but is not, a true lymphatic gland in contracting infection, syphilis, etc., but this function is not essential to life and the removal of the spleen does not produce a minus phase in the lymphatic drainage of the body katabolism.

3. In contracting and expanding during its once-a-minute systole and diastole it fills and empties the depository for old and decrepit red blood cells, and also by means of a chemical process saves the valuable constituents of these cells, such as hemoglobin, to be utilized in the formation of new red blood cells and to furnish pigments such as are needed by the newborn red cells, the bile and for the regeneration of depleted hemoglobin. Some physiologists claim that wornout leukocytes and phagocytic white blood cells are also junked in the spleen and the usable residue passed on to the tissues that have to do with the reformation of this residue into active white blood cells.

The spleen, like the tonsil, thymus, ovary, testicle and appendix, is actively associated with the glandular activity of the body in inverse ratio to the age of the body—the older the lesser in activity.

The spleen has been the most neglected organ in the body, in my opinion, from a clinical standpoint. The physiologists for the past twenty years have agreed as to its functions, but we, as clinicians, have neglected to correlate what the physiologists have taught us with what the changes in the spleen, its size, shape, contour, etc., can indicate to us at the bedside.

Our essayist, under whom I have had the pleasure of studying since 1919, has converted me to the realization of the necessity of evaluating the spleen as an organ that tells its story almost as convincingly as can the heart. Since realizing the value of a study of the physiology of the spleen and of its changes in size and consistency during primary and secondary disease of this organ, I have become so interested that I have actually learned to palpate and percuss the spleen with a fair feeling that my outlines are accurate.

Dr. J. H. Musser (New Orleans): When Dr. Guthrie prepares a paper there is very little left that can be said.

The subject of the physiology of the spleen is undoubtedly extremely interesting. When all is said and done we know less about the organ than we do about any other organ in the body. We do know some facts, but, after all, they are facts which are really of comparatively little value.

I think the one important thing we do know about the spleen is that it can be removed without injury to the patient. The old marathon racers used to have their spleens removed with the idea that they would be better runners and apparently they were, because they continued to run over some period of years.

There is one thing about Dr. Guthrie's paper I would like to accentuate, and that is the value of percussion. When I was an intern some years ago in a Pennsylvania hospital one of the details in the watching of our typhoid fever patients that we had to carry out was the daily measurement of the spleen. Those of you who have attempted to palpate spleens and percuss spleens, particularly in the presence of abdomens which are frequently very much distended as they are in typhoid fever, realize that such a procedure was one accomplished with a great deal of difficulty. We could not actually do it with any great degree of satisfaction. I did learn, I think, that the percussion of the upper border of the spleen sometimes gives us considerable information. The spleen is enlarged upwards as well as downwards, and if we find impairment of our percussion note an interspace or two interspaces higher than the normal ninth to eleventh area of dullness, it is perfectly obvious that the spleen is enlarged up. I have taken advantage of that particular method of percussing or attempting to delimit the outer border of the spleen by percussion and have often found it given me information which I know otherwise I could not obtain.

Dr. Guthrie has called attention to percussion of the spleen. I must say I think it is a method which is too frequently neglected and one which does help us considerably to determine the presence of a splenomegalia.

Dr. J. Birney Guthrie (New Orleans): I appreciate very much the discussion of the paper brought out. Any man who reads a paper on the spleen and has Dr. Musser discuss it ought to count himself lucky.

The doctors are playing battledore and shuttlecock with their compliments, but in looking over the literature on the spleen one finds Dr. Musser's name written into the literature. As I told him this morning, he has about grown up

or matured in a splenic atmosphere. He has probably actually taken part in more work on the spleen than anybody here, and yet it is rather a striking situation to have him get up here on this platform and tell us how little any of us know about the spleen.

As regards percussion, I wrote three or four pages on that subject, which I left out in the reading of my paper. I should like to have opportunity of discussing this method in the paper, but time was lacking.

We are told in the literature that percussion of the spleen is a very unsatisfactory thing, for the reason that the spleen lies against two gas-containing organs, the splenic flexure of the colon below and the stomach above; then just through the diaphragm lies the left lung, so if we are going to percuss out the upper border of the spleen with any satisfaction we are going to have to do an artistic piece of work and must tune our instrument so that when a change in density is encountered in our percussion we get the impression of it. All there is to the light percussion method is the use of a minimal stimulus, and it is the only method I believe would serve in this service.

Henry Hultz, of Grand Rapids, in the early days of the roentgen ray, about 1903, made the statement that, as regards the interpretation of a radiography, "the density is there and it is for the radiologist to determine existing differences in density." If we can transfer that to methods of physical examination we can say that the differences in density are there and if we fail to get them it is because we do not try hard enough or the methods are destroying our contrasts by stimuli of over-intensity—striking too hard.

It is surprising to see what we can do in the way of palpation or percussion when we work with hope of success, but if we pound the chest and set the whole bell of the thorax into vibration together with the mattress underneath it, we are not going to be able to bring out minute differences which actually exist. These are not so minute after all, but the covered up solid spleen, lying in a bed of gas-containing organs, should be easy to locate, and it is easy if we properly tune the instrument for the percussing and plessimeter finger to the region where we are working, using always the minimal blow that will give resonance in the unimpaired region.

RHEUMATIC FEVER AND RHEUMATIC HEART DISEASE.†

THOMAS M. MCMILLAN, M. D.,

AND

CHARLES F. NICHOLS, M. D.,*

PHILADELPHIA.

Heart disease is unquestionably the chief cause of death; its incidence moreover is increasing. These facts make it the most pressing public health problem. The program of every organization, which is answering the challenge of this problem, includes the prevention as well as the relief of heart disease. If prevention is ever to be accomplished, the starting point should be children and young persons and the disease to be attacked is rheumatic fever. Of this fact our profession is now keenly aware with the result that the disease has received a great deal of study within recent years. This effort has greatly broadened and extended our conception of it.

The old conception of rheumatic fever, the one that was taught until very recent years, was that it is a disease primarily of the joints with the heart being involved as a sort of complication in a certain percentage of cases. This picture is entirely inadequate, as we all know today. The disease we are considering is as protean and varied in its manifestations as tuberculosis or syphilis. Swift¹ is responsible for first calling attention to the clinical similarity of rheumatic fever and tuberculosis. Just as tuberculosis may attack the skin and joints, so may rheumatic fever. Tuberculosis often attacks the nervous system, causing meningitis; when rheumatic fever invades the nervous system, we see chorea. Tuberculosis, of course, most frequently attacks the lungs

and pleura; rheumatic fever likewise not infrequently involves these structures. It differs from tuberculosis, however, in this way: regardless of what organs or structures outstandingly manifest signs of the disease, the heart is practically always involved.

It behooves us therefore to think of rheumatic fever as a disease with a multiplicity of manifestations and sites of involvement, and not to consider it simply a disease that causes arthritis with an occasional involvement of the heart.

That such a conception of rheumatic fever as we briefly outlined is not radical is shown by the fact that out of every one hundred cases of fully developed heart disease of a form known to be the result of some antecedent rheumatic infection, not over fifty of these one hundred patients will give a history of ever having had rheumatic fever. This can only mean that fifty out of every one hundred cases of rheumatic fever exist without the patient himself, or the patient's parents, or the patient's physician realizing that rheumatic fever is present. It is this 50 per cent that has previously gone unrecognized that we wish particularly to emphasize.

Let us therefore briefly discuss some of the main features of this disease.

THE CAUSE OF RHEUMATIC FEVER.

Every feature of the disease indicates that it is the result of an infection. It was natural to attempt to fix the blame on some one specific organism but this has not been successfully done. A study of the past literature will reveal that something over 100 organisms have at one time or another been considered as the cause of rheumatic fever. As a part of this conception, it was thought that this organism gained entrance to the blood stream, and lodged in different parts of the body, and that the tissues changes that we associate with rheumatic fever were responses to the direct presence of these organisms. Swift² is largely responsible for calling our atten-

†Read before the Section on Medicine at the Sixty-fourth Annual Session of the Mississippi State Medical Association, Jackson, May 12, 1931.

*From the Division of Cardiology of the Philadelphia General Hospital, Medical Service A of the Pennsylvania Hospital, and the Robinette Foundation of the University of Pennsylvania.

tion to what at present seems to be the most satisfying theory of the disease; a theory which regards rheumatic fever as being the result of not one organism but many different strains. Let us consider then for a moment his theory of the three possible hypothetical factors dealing with the role of streptococci in rheumatic fever:

1. Elective localization.
2. Specific streptococci elaborating a specific toxin.
3. Rheumatic fever as an allergic phenomenon.

Against the theory of elective localization may be brought the evidence that the infection in rheumatic fever is practically as widespread as syphilis.

The hypothesis of a specific streptococcus rests on the recovery of indifferent streptococci in blood cultures from a few patients with the disease; on the effect on the course of the infection of an immune serum prepared against these cocci; and finally, on the action of a vaccine prepared from them. Hitchcock³ has recently shown that indifferent streptococci are practically as frequent inhabitants of the throats of the non-rheumatic individuals, and that the strains recovered belong to different immunologic groups. Hence, indifferent streptococci may and probably do play a role in some cases, but no more an exclusive role than any other strain. Indeed, it has been shown by Cole⁴ and Bull⁵ that the strains recovered from persons with the disease produce the same lesions as do those recovered from the throats of non-rheumatic persons when injected in large amounts into laboratory animals. Such experiments throw doubt on the causative role of specific streptococci.

The allergic hypothesis offers a reasonable explanation of the protean manifestations of rheumatic fever. Under this conception the tissue changes of rheumatic fever are not believed to be the result of the direct presence of organisms but are

the result of an allergic response on the part of tissues that have become hypersensitized to the bacterial poisons of organisms that are perhaps localized in various foci. Swift² has shown by the production of focal lesions in rabbits with certain non-hemolytic streptococci that he was able to produce a state of hypersensitiveness similar to that described in tuberculosis. This offers a very strong clue to the solution of the problem. The point to be emphasized here is that production of focal lesions seems to be necessary for the induction of the allergic state and that, once present, it can be maintained by inoculation of the tissues with doses of streptococci that are practically innocuous for normal animals. The experimental demonstration of both a hypersensitive and an immune type of reaction toward the same non-hemolytic streptococcus seemed to Swift⁶ and his coworkers transferable by analogy to the clinical condition of patients with rheumatic fever and subacute streptococcus endocarditis, respectively. The former show a marked tissue reaction to some irritant, either a bacterial body or some soluble toxin. The tissues of a patient with subacute endocarditis do not show the same overactivity to streptococci.

One can say nothing more definite than this as to the cause of rheumatic fever. The weight of evidence at present rather strongly recommends the allergic theory, however, with the question receiving such intensive study, it seems almost certain that before long the cause of this disease will be definitely known. When this occurs, our first big step toward the prevention of rheumatic fever will have been taken.

THE FREQUENCY OF INVOLVEMENT OF THE HEART IN RHEUMATIC FEVER.

In the older teachings cardiac involvement was thought to be a complication of rheumatic fever. At present it is considered a part of the disease. If rheumatic fever is present, one is justified in assuming that the heart has been involved to a

greater or less extent in practically every instance. If one judges by the ordinary physical findings in the heart, cardiac damage may not be detected in a fairly large number of cases, but it exists nevertheless. If one considers the electrocardiographic evidences, damage to the myocardium can be shown to exist in something over 90 per cent of all cases of rheumatic fever. The safe course for us as clinicians to follow is to regard the heart as damaged in every case of rheumatic fever until careful observation over a period of months has definitely proven that it is not.

THE COURSE OF RHEUMATIC FEVER.

Formerly, this disease was considered a self-limited one. It was thought that an attack of rheumatic fever lasted for two, three, or even as long as six weeks, and then was ended. Our attitude at the present time is very similar to that held by lung specialists in regard to tuberculosis. It is difficult to get a careful lung specialist to speak of tuberculosis as being cured. He may consider it inactive, arrested, or quiescent, but he hesitates to speak of it as cured.

This is the attitude we now hold toward rheumatic fever. We believe that the disease may become inactive but we are loath to say it is cured, in children at least, until months, or years of inactivity have passed. It may remain as a disease of mild or slight activity, perhaps not active enough to give much if any temperature; yet it is present and continually may be damaging the heart.

This conception enables us to understand better the fact that once rheumatic fever has appeared in children, other "attacks" are apt to occur. The older view was that these were separate new infections with complete recovery between. Our feeling now is that these "attacks" are really exacerbations of an infection that has continuously been present though its activity may have been of such a low grade

its presence escapes notice. Let us emphasize here as we hope to do later that rheumatic fever does not cause any arthritic symptoms in nearly one-half of its victims.

This new conception has led us to assume that every attack of rheumatic fever, in children at least, is an infection which will last not weeks, but months, or years. This attitude has of course modified our whole form of treatment. At the Children's Heart Hospital in Philadelphia, an institution devoted solely to the treatment of children with rheumatic fever, the average duration of every admission is nine months. We have repeatedly had children there who have continuously shown evidences of a low-grade rheumatic infection for years.

THE CONTAGIOUSNESS OF RHEUMATIC FEVER.

There are many facts available that at least raise the suggestion that rheumatic fever is a mildly contagious disease. Its existence in more than one member of a family;^{7, 8} apparent epidemics of the disease^{9, 10} and the fact that children show less tendency to recurrences while in special convalescent homes,¹¹ but are more subject to relapses once they return to their own homes than children who have not been in special institutions¹² are some of the reported evidences that bear on this point. Paul¹³ has shown in a convincing manner the connection between respiratory infection in one member of a family and the development of rheumatic fever in another member of the same family.

THE DEVELOPMENT OF IMMUNITY TO RHEUMATIC FEVER.

If we accept a streptococcal spetiology for rheumatic fever, there is in childhood ample opportunity for the tissues to become sensitized by repeated small invasions of streptococci or their soluble toxins from foci in the tonsils, teeth, nasal sinuses or respiratory tract. This primary invasion may at first produce no definite signs of disease. However, a process of

sensitization has been going on, and when a fresh attack of tonsillitis, or rhinitis, occurs, manifestations of arthritis or carditis may become evident as a result of the acquired bacterial allergy. At this early age arthritic symptoms may be slight or absent and the whole picture one of overwhelming cardiac infection from the start.

In the young, a period when acute manifestations are the rule, rheumatic fever commonly assumes a generalized form. When a degree of immunity has become established later in life, the disease is more apt to become localized. We commonly see more frequent and severe joint lesions in adults than in children. As age advances there seems to be a tendency on the part of the body to restrict the activity of the virus to smaller areas. This process undoubtedly takes place in tuberculosis and syphilis, why cannot the same process proceed in rheumatic infections? With repeated infections, it seems reasonable to suppose that the disease becomes more chronic with the formation of more and more fibrotic tissue. The end results in the heart of these repeated insults may well be the development of an adhesive pericarditis or a stenotic mitral valve.

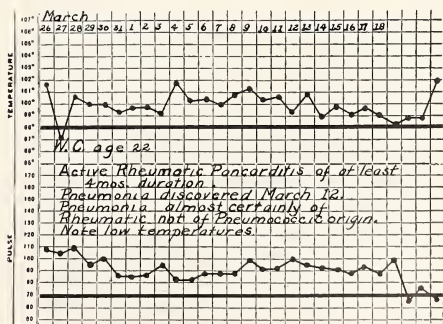
The tendency of rheumatic fever in children is toward chronicity; and transitions between chronic cases and cases showing apparent complete recovery are not uncommon. There is, however, a tendency for the infectious agent to persist in the body for years and we see patients in their second or third attack whose primary manifestation of rheumatic fever occurred years before. Each succeeding attack tends to be more localized and the severe generalized reactions fade from the picture. Thus, the process of immunity becomes established and the infection is arrested. Nevertheless, we must be prepared at any time to see a reawakening of activity in rheumatic fever just as we commonly do in tuberculosis.

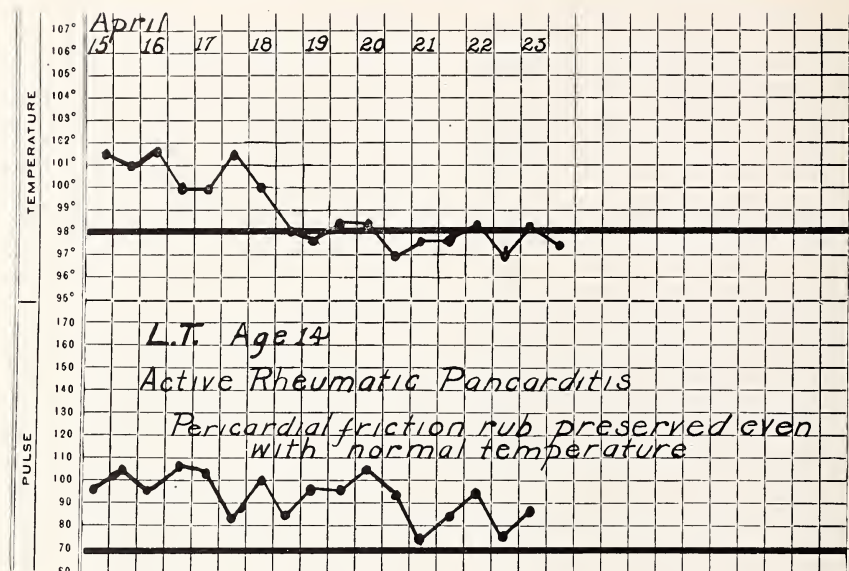
THE EVIDENCES BY WHICH THE ACTIVITY OF INFECTION IS JUDGED.

Fever. At some stage of rheumatic infection some degree of fever is probably present. It may be very high or it may be just above normal. It may last for weeks, or it may exist for no more than a few days. Yet, even when fever is not conspicuous or even present, the infection may still be active and may be progressively damaging the heart. This point needs great emphasis.

One should remember that this disease often runs a very low-grade chronic course with a tendency to recurring small or large bouts of fever; with each recurrence of activity the heart is apt to suffer more severely. Therefore, the physician must be on the watch for every sign of activity as they are warnings not to be neglected. In the figures (1 and 2) are shown the temperature charts of two patients in the wards of the Pennsylvania Hospital, one has fever and the other only a slight temperature. One (Fig. 1) had a well-marked pneumonia and was desperately ill. The other (Fig. 2) had all the evidences of a severe rheumatic carditis, including pericarditis in spite of the slight temperature reaction. Neither had any joint manifestations.

Cardiac Failure. If a child is showing evidence of cardiac failure, at rest, it may be fairly assumed that such a child has an





Electrocardiogram 4/16/31

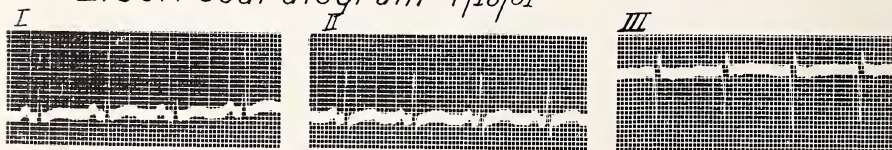


Fig. 2. Temperature chart and electrocardiogram of a patient severely ill with rheumatic pancarditis. The chart illustrates the low and even absent temperatures frequently seen in active rheumatic infection. The electrocardiogram shows the characteristic "notching" of the T waves, a finding always very suggestive of an active rheumatic carditis.

active infection; for a child's heart will rarely fail regardless of the existing cardiac damage unless there is active infection. This cannot be applied so certainly in the case of adults.

Leukocytosis. We use to feel that we could rely upon the leukocyte count to determine whether the rheumatic infection was active or inactive. Repeated counts in children would seem to be of some clinical value in diagnosis, prognosis, and treatment. There are, however, many exceptions. Children, in whom the activity of the infection is of a low grade, but present nevertheless, may frequently show white blood counts below 9000. The aver-

age leukocyte count in children with active infection will be slightly above this figure.

There are numerous instances also where even with very severe infection we see little or no increase in the white blood count. Let us cite an instance:

C. P., a young colored woman of twenty-one years, entered the Pennsylvania Hospital, because of fever, breathlessness, weakness, and severe cardiac pain. For three days, her condition was critical, her pulse being so weak that at times it was barely perceptible. The heart showed a soft systolic murmur, a gallop rhythm, some enlargement and rapidity. The electrocardiogram showed evidence of muscle damage. It was obvious in the presence of these findings and fever that some infection of the heart existed. Because the leuko-

cytes were never above 7000, we tentatively diagnosed the infection as tuberculosis. But she began to improve, and in six months left the hospital relatively well. Within a year, however, there had developed a definite mitral stenosis, which proved conclusively that the infection had been rheumatic fever. Yet, the leukocyte count during the active stage of the infection had always been between 5000 and 7000.

Weight. When a rheumatic infection is quite active, there is usually an accompanying loss of weight, but this is not an infallible guide to activity of infection. Children who have an active but low-grade infection may gain weight steadily.

Anemia. Often low blood counts accompany rheumatic infection; on the contrary, the blood count is not infrequently normal. However, when anemia is present, it is of some help in recognizing the presence of an active infection. It is particularly helpful when anemia, once present, disappears.

Pulse Rate. Rapidity of pulse is a sign of confusing value. A persistent tachycardia over one hundred beats per minute, both when a child is awake and asleep, is apt to be a sign of active disease. The pulse rate while asleep is often a very valuable consideration in estimating activity. It must be remembered that an active rheumatic infection may be present and the pulse rate unduly slow. The patient whose chart is shown in figure 3 began her active infection suddenly. The first symptoms were nausea and vomiting. Even before the temperature became very high, her pulse rate rose excessively, and directed our attention toward rheumatic fever as the cause of the fulminating infection.

There are no pathognomonic signs of rheumatic activity: it is often extremely difficult to say whether a rheumatic infection is or is not active. Perhaps on the whole, the most helpful and valuable sign is the patient's general appearance and color.

Pallor. The pallor of rheumatic fever is difficult to describe. This can be said:

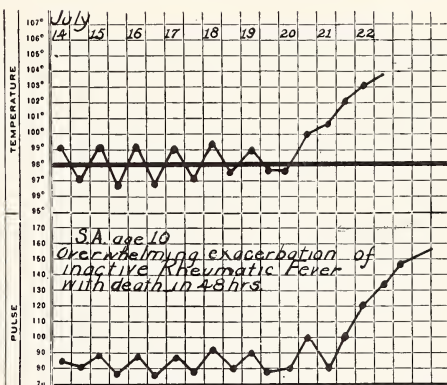


Fig. 3. Temperature chart of a child with inactive rheumatic fever who suffered a reactivation of the infection. The child was apparently perfectly well when the temperature began to rise and was dead in 48 hours. This illustrates the fulminant, virulent, overwhelming nature of rheumatic fever in its most severe and toxic manifestations.

it exists independent of anemia. It is best seen circumorally and over the back of the neck. To us it is striking and perhaps the most valuable evidence we have of active infection.

SOME UNUSUAL MANIFESTATIONS OF RHEUMATIC FEVER.

Atypical Forms of Joint Involvement in Rheumatic Fever. The text book pictures of the joints during active disease are well known. We constantly see departures from this picture. Only one joint may be involved, and this may be a small joint. Inflammation and pain may be slight or even trivial.

Rheumatic Fever without Joint Manifestations. The vast majority of the 50 per cent of rheumatic fever that has gone unrecognized in the past has been of this variety. In children particularly do we see the infection manifesting itself as a carditis without any joint involvement whatsoever. This is also not infrequently seen in adults. The picture is one of an infection, mild, moderate or overwhelming with the heart the chief site of involvement. Usually one can detect some unusual sign in the heart that leads one to suspect it. These signs will be discussed presently.

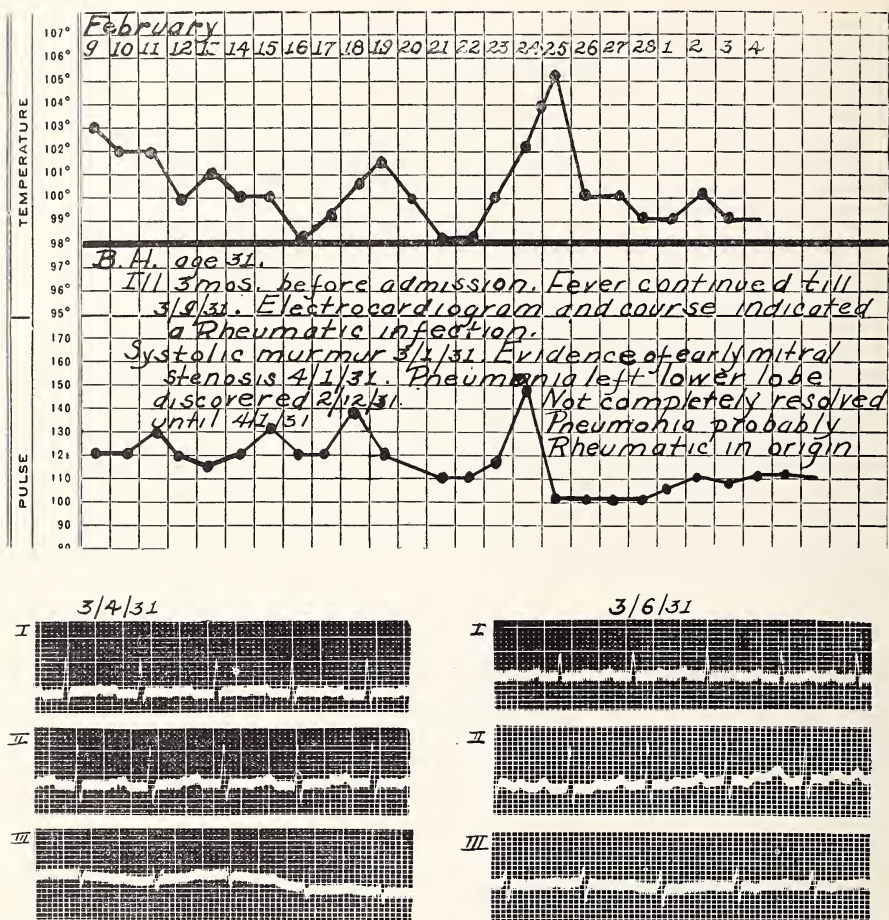


Fig. 4. Temperature chart and electrocardiograms of a patient who was thought to have an ordinary lobar pneumonia and so treated until electrocardiograms showed a transient A-V heart block (prolonged P-R intervals). That rheumatic fever was actively present was shown not only by the electrocardiographic changes but by the subsequent development of mitral stenosis.

When joint manifestations are not present and when the cardiac signs are not convincing the recognition of rheumatic fever is extremely difficult. Under these circumstances the electrocardiogram is of immeasurable aid.

Chorea. This condition is simply the result of an involvement of the nervous system by rheumatic fever. This manifestation of the disease insidiously damages the heart as do the commoner manifesta-

tions of the disease. It will not be further discussed.

Rheumatic Pneumonia. The frequency of pneumonia during rheumatic fever has been known for a long time. Many writers have mentioned its high incidence. It is only recently that the pneumonia of rheumatic fever has been considered a specific entity that differed pathologically from other forms of lung consolidation. Gouley and Eiman¹⁴ have studied the dis-

ease and believe that it is primarily an interstitial pneumonitis and that the basis of the pathology is swelling of the endothelium of blood vessels.

The clinical picture differs from that presented by an ordinary lobar pneumonia. The charts of two patients are shown in Figures 4 and 1. In the first case, the low temperature and decidedly slow pulse-rate are out of keeping with the usual picture of lobar pneumonia. This patient, however, was regarded as having a pneumococcus pneumonia and so treated until an electrocardiogram revealed changes characteristic of rheumatic fever, and the true nature of the pneumonia was established. The second patient, a young man of twenty-one, with an old rheumatic heart, presented every possible evidence of a severe and overwhelming rheumatic carditis. In addition, he had complete consolidation of the lower right lung with loud bronchial breathing and all the other signs of a solid lung. His temperature chart is striking. It is little if any above the normal run in spite of the sever pancarditis and pneumonia. Paul¹⁵ called attention to the frequency of involvement of the lower left chest during rheumatic infections. In fifteen cases which died with active rheumatic infection there was some involvement of either the left lower lung or its pleura in every case. The usual site of pneumonia in rheumatic fever is the left lower lobe, but, as the second case we have cited illustrates, this is not an invariable rule.

Rheumatic Peritonitis. Examples of definite rheumatic peritonitis have been reported.¹⁶ Holsti¹⁷ has stated that the vesicles of the gastro-intestinal tract are invaded with arteritis verrucosa more frequently in rheumatic fever than in any other malady. In this connection, the studies of Holsti assume even great significance. Thus the cases one not uncommonly sees with adhesive pericarditis and a chronic involvement of the peritoneum

are not unlikely end results of an old rheumatic infection.

This completes our attempt to emphasize the fact that rheumatic fever can involve almost any portion of the body. A correct appreciation of this is essential to a correct recognition of the disease.

The important assumption that we should make is that no matter where the conspicuous and outstanding manifestations of rheumatic fever may be, the heart is always involved to a greater or less degree. This is important not only because damage to the heart is the ultimate result that we dread and attempt to avoid, but also because recognition of the cardiac involvement will directly aid us in recognizing a given infection as rheumatic.

THE RHEUMATIC HEART.

The Pathologic Changes of Rheumatic Fever. The characteristic lesion that results from rheumatic fever is the Aschoff body, which consists essentially of a collection of round cells around or near a blood vessel. Such lesions are part of a process which destroys the invaded tissue and in healing leaves behind fibrosis. There is another important pathological manifestation in rheumatic fever which there is a good deal of reason to believe is probably the fundamental cause of the pathological changes seen in this disease. We refer to the change in the endothelium of the blood vessels. These cells are almost always swollen, a process which often goes so far as to completely occlude small blood vessels. These two lesions so far as we know are the only pathological manifestations in the heart or other organs of the disease which we are considering. Their presence we assume is the cause of the cardiac manifestations that we see during the acute stages of rheumatic fever and their healing by fibrosis is the cause of the end result of the disease, that we know so well as the old rheumatic heart.

The Sites of Cardiac Involvement in Rheumatic Fever. The involvement of the

heart by this disease is a pancarditis—the pericardium, myocardium and endocardium all being effected. Analyses of cases which have died during an active rheumatic infection have been made by a number of workers.^{18, 19, 20} We quote from Paul and Graham's observations. Their series consisted of 18 cases. Pericarditis was present in every case. Involvement of the heart muscle is likewise seen in every instance. Every case also showed involvement of some valve. The mitral leaflets were affected universally, the aortic valve was involved in fifteen cases, or 8 per cent, the tricuspid in nine or 50 per cent, and the pulmonary valve in 2 or 11 per cent. When the acute infection is survived, these various involvements will heal by fibrosis; chronic and permanent damage will result in every site that has previously been acutely involved.

We must be prepared to meet less serious involvement. Occasionally one finds hearts where only one valve has been affected—the muscle and pericardium having apparently escaped or at least been involved to a trivial or undemonstrable degree. On the other hand, one occasionally sees instances where the muscle, pericardium, or both, have been involved without demonstrable valve damage. It is quite possible that the entity known as Fielder's myocarditis or acute isolated myocarditis (²¹ and ²²) is in reality a rheumatic invasion of the myocardium without accompanying endocarditis or pericarditis.

The Duration of Life After a Rheumatic Infection. As the series of Paul and others show, many victims of rheumatic fever do not survive the acute infection. We know of no disease that causes a more toxic picture in its fulminant form than rheumatic fever. The child whose chart is shown in Figure 3 was apparently perfectly well at the time the temperature began to rise; she was dead within forty-eight hours.

Statistics will vary somewhat but it can be said with relative certainty that, taken on the average, a patient who has been the subject of rheumatic fever, will be dead within a period of nine to twelve years after the initial infection. Such an average is of course determined by wide extremes.

On the hopeful side we must remember that there are quite a number of hearts that receive only a minimal damage from rheumatic fever and are little if at all handicapped in their subsequent life by this damage.

The rheumatic heart should be considered from two points of view: (1) The cardiac involvement and manifestations during the acute stage of rheumatic infection, and (2) the old rheumatic heart—the final result of the healing and scarring of the acute damage.

SOME OF THE ACUTE MANIFESTATIONS OF THE HEART SEEN IN THE ACUTE STAGE OF RHEUMATIC INFECTION.

It is not necessary to refer at length to the behavior of a heart that is the seat of an overwhelming pancarditis. It fails and may do so very rapidly.

Murmurs. Because of the great frequency of endocardial involvement, we expect and almost always find murmurs developing. The usual one is a systolic murmur at the apex. The diastolic murmurs of mitral stenosis and aortic insufficiency usually require time for their development. Bruits may change quite rapidly and may be no more conspicuous than the murmurs heard incidentally in a good many normal hearts, particularly when fever is present. The point we wish to emphasize is that, while murmurs are important and helpful, we cannot rely entirely upon their presence or absence in deciding whether or not a given infection is rheumatic.

Pain. Most cases of well-marked rheumatic pancarditis at some period have precordial pain. This may be intense or it may be mild and transient. Pain may

result from one of several different causes. It may have its origin in a rheumatic pleurisy; it usually is the result of pericarditis. At times the pain has the characteristics of an anginal seizure. Such types give ground for interesting speculation. We know the endothelium of the cardiac blood vessels is sometimes profoundly effected. It has been suggested that this process plays a role in the pain so frequently seen in acute rheumatic carditis.

Precordial Pain as the Earliest Manifestation of Rheumatic Fever. In a few instances, we have seen precordial pain, sometimes severe, at other times, slight, as the first symptoms of rheumatic infection. Let us briefly cite a case which is at present under observation in the wards of the Pennsylvania Hospital:

E. W., aged 26 years, sought hospital care because of an unpleasant consciousness of her heart beating and because of attacks of what she described as severe precordial pain, which had existed for one week. On admission and during our observation of over a month, her temperature did not exceed one hundred degrees. We were unable on our first examination to discover anything in the heart or elsewhere to account for her symptoms and findings. The electrocardiograph on the day after admission, however, revealed changes significant of rheumatic fever. Three days after admission, typical joint manifestations appeared. These and a systolic murmur which developed, established the diagnosis of rheumatic carditis, but for more than one week, the only symptom or sign discovered was precordial pain.

Disturbances of Rhythm an Early Manifestation of Rheumatic Fever. Many disturbances of rhythm are seen during acute rheumatic fever. These have been reported in many papers. We wish here to emphasize that disturbed rhythm may be a very early or even the first manifestation of carditis.

H. G., a trained nurse, aged 19 years, had apparently been entirely well. She began her day's work unconscious of any ill-being. After she had been at work for a few hours, she began to feel feverish and to be disturbed by a very irregular heart action. When we saw her a few hours later, we only found a temperature of 101° and a heart

action disturbed by showers of extra systoles, which she was certain were never before present. Our suspicion of some cardiac infection was confirmed by the appearance of typical rheumatic joints three days after the onset of her illness.

The diagnosis of rheumatic fever and cardiac involvement as we have indicated may be a difficult one to establish. We have, however, at our disposal a diagnostic means of the greatest importance. I refer to the electrocardiograph.

The Electrocardiograph Changes in Acute Rheumatic Fever. We will not consider this big subject here; the references cited will have to suffice.^{23, 24, 25, 26, 27} There are certain electrocardiographic changes, by no means always present, that are almost pathognomonic of rheumatic carditis. The most important ones are elevation of the S-T interval, a suggestion of or an actual notching of the T waves and varying grade of A-V heart block. It is to be emphasized that all of these changes are transient, and if they are to be discovered, frequent electrocardiographs are usually necessary.

Some years ago one of us²³ called attention to the frequency of notched P waves and their importance in acute rheumatic carditis. After several years of further observation, we wish to qualify our previous comments only by stating that this sign is of most value when it occurs in Lead I.

We personally believe that the galvanometer is one of the most important means at our disposal of recognizing obscure rheumatic infection. We would be decidedly unwilling to attempt to do this work without its aid.

THE END RESULTS OF ACUTE RHEUMATIC CARDITIS—THE OLD RHEUMATIC HEART.

The characteristic physical signs and pathologic changes are so well known that they need not be considered in this paper. Suffice it to say, that these signs and changes are the direct result of the damage done during the active infection. Before

dismissing the matter, there is one subject that we wish briefly to discuss.

The Clinical Course of Inactive Rheumatic Fever. The behavior of an old rheumatic heart is entirely different from that of any other form of damaged heart. For instance, a rheumatic and syphilitic heart may both show aortic insufficiency but the behavior and course of the two will be entirely unlike. Nothing better illustrates the importance of the etiological diagnosis of heart disease than this.

The course of a rheumatic heart is downward, but if there is no active infection, progression may be exceedingly gradual if reasonable care is exercised. There may be considerable periods when no progress in the deterioration can be detected; it only very rarely will be rapid or sudden. When the cardiac reserve does become diminished it usually can be readily restored a number of times—a behavior so different on the whole from the syphilitic heart! Many patients with old rheumatic hearts that are continually on the border-line of failure can remain at their work for considerable periods by resorting to the simple expedient of resting over the week-end. This sort of behavior is to us one of the most remarkable and characteristic features of the inactive rheumatic heart.

But in spite of its resiliency and its splendid recuperative efforts its course is downward. Nearly all will have run their course by the age of 50 years; a few will go beyond 60 years; and very rarely we encounter an old rheumatic heart which has completed the allotted span of three score years and ten.

The rate of deterioration, the length of life, and the general course are undoubtedly determined in the main by the degree of involvement of the muscles rather than the valves. Often rheumatic hearts that reach relatively ripe years present more valvular damage than some hearts which die much younger; the explanation is that the muscle

of one escaped serious injury; the other did not.

BIBLIOGRAPHY.

1. Swift, H. F.: Rheumatic fever, *Amer. Jour. Med. Sci.*, 170:631, 1925.
2. Swift, H. F.: Rheumatic fever, Hektoen Lecture, *J. A. M. A.*, 92:2071, 1929.
3. Hitchcock, C. H.: Studies on indifferent streptococci, *Jour. Exp. Med.* 48:393, 1928.
4. Cole, R. L.: Exp. streptococcus arthritis in relation to the etiology of acute articular rheumatism, *Jour. Infect. Dis.* 1:714, 1904.
5. Bull, C. G.: Pathologic effects of streptococci from poliomyelitis and other sources, *Jour. Exp. Med.* 25:557, 1917.
6. Swift, H. F.; Derick, C. L.; and Hitchcock, C. H.: Bacterial allergy to nonhemolytic streptococci, *J. A. M. A.*, 90:906, 1928.
7. Cheedle, W. B.: Albutt and Rolleston, *System of Medicine*, 2 Part 1, 647, 1908.
8. St. Lawrence, W.: The family association of cardiac disease, rheumatic fever and chorea, *J. A. M. A.*, 79:2051, 1922.
9. Grenet, H.: La Contagiosité du rhumatisme, *Preese Med.*, 23:428, 1915.
10. Boas, E. P., and Schwartz, S. P.: Some modes of infection in rheumatic fever, *Amer. Heart Jour.*, 2:375, 1927.
11. British Ministry of Health, Report 44, 1927.
12. McCulloch, H., and Irvine-Jones, Edith I. M.: *Amer. Jour. Dis. Children.* 37:252, 1929.
13. Paul, J. R.: Pleural and pulmonary lesions in rheumatic fever, *Medicine* 7:383, 1928.
14. Eiman, J. J., and Gouley, B. G.: Rheumatic pneumonitis, *Proc. Phila. Path. Soc., Arch. Pathology.*, 4:556, 1928.
15. Paul, J. R.: Pleural and pulmonary lesions in rheumatic fever, *Medicine* 7:383, 1928.
16. Wood, F. C., and Eliason, E. L.: Rheumatic Peritonitis, *Amer. Jr. Med. Sci.* 181:482, 1931.
17. Holsti, O.: Beiträge zur der Tonsillen bei den Rheumatischen Gelenkaffektionen *Arb. a. d. path. Inst. Helsingfors* 3:413, 1925.
18. Poynton, F. J.; Agassiz, C. D. S., and Taylor, J.: *Practitioner*, 93:445, 1914.
19. Thayer, W. S.: *Bull. Johns Hopkins Hospital*, 36:99, 1925.
20. Paul, J. R., and Graham, R. S.: Studies in rheumatic fever, *Bulletin Ayer Clinical Laboratory of Penn. Hospital.* 10:44, 1926.
21. Fiedler, G.: Ueberakute interstitielle myokarditis. *Centrabl. f. Innere Med.* 21:212, 1900.
22. Scott, R. W., and Saphir, Otto: Acute isolated myocarditis, *Amer. Heart Jour.* 5:129, 1929.
23. McMillan, T. M., and Cook, G.: The electrocardiographic changes occurring during rheumatic fever. *Atlantic Med. Jour.*, 31:806, 1928.

24. Cohn, G. E., and Swift, H. F.: Electrocardiographic evidence of myocardial involvement in rheumatic fever. *Jour. Exp. Med.* 39:1, 1924.

25. Rothschild, M. G., Sacks, B., and Libman, E.: Disturbances of the cardiac mechanism in subacute bacterial endocarditis and rheumatic fever. *Amer. Heart Journ.* 2:356, 1927.

26. Bain, C. W. C., and Hamilton, C. K.: Electrocardiographic changes in rheumatic carditis, *Lancet*, I, 807, 1926.

27. Reid, W. D., and Kenway, F. L.: Value of the electrocardiogram in acute rheumatic fever. *New England Jour. Med.*, 198:177, 1928.

HOME TREATMENT OF TUBERCULOSIS.*

W. A. TOOMER, M. D.,

TUPELO, MISS.

The well conducted sanatorium offers the ideal conditions for the treatment of tuberculosis, yet we must recognize the fact that most patients who are suffering from this disease are obliged to be treated in their own homes; consequently it is necessary for us to familiarize ourselves with the principles of treatment and study the problems sufficiently closely to be able to surround the patient in his home with conditions as ideal as possible. To this end it is necessary to bear in mind that the condition which is often least difficult to supply is the one which is usually emphasized most, open air sleeping accommodation. The most difficult, on the other hand, and the most important, is to provide the patient with hopeful, helpful, co-operating influences. This requires a thorough training on the part of the attendants and those who must come in contact with the patient. Few patients possess sufficient self-control and the requisite degree of self denial to carry out a protracted regime amidst the distracting influence of the home; and few friends possess the judgment to associate with patients who are attempting to carry out such a program and afford them the moral support which is needed. Too much emphasis is laid on the open air sleeping

porch and not enough on the surrounding influences.

The home treatment of tuberculosis will be successful in direct proportion to the manner in which sanatorium principles are established and carried out. By the term sanatorium principles is meant a carefully planned program of hygienic living, personal hygiene, regulated rest and exercise, food prescribed to suit the needs of the patient, and other measures which are directed toward increasing the patient's vitality and surrounding the patient with an atmosphere of cheer and hope.

The next most necessary thing to do is to definitely satisfy the patient and his family as to diagnosis. Make a thorough examination, roentgenogram of chest, and show the picture to the patient and family and point out to them the chest findings, provided it is not a far advanced condition that offers no hope of a cure. Examine sputum and if possible find the bacilli because this is the one thing that will satisfy the patient, his family and his friends, as to the correctness of the diagnosis. Take plenty of time. The diagnosis does not have to be made in a day and when the diagnosis is established to the satisfaction of the patient and family, enter into a frank discussion of the patient's condition and the program that is to be carried out. Give him some idea of the extent of his trouble and go thoroughly into the history of the case, also give him some idea of how long you think he has had tuberculosis and tell him all the favorable things you know about tuberculosis. Impress upon him the fact that tuberculosis is a curable disease and refer to some of his friends and acquaintances who have been cured of the disease and if you think he has a good chance of a cure tell him so but at the same time give him to understand that it requires absolute co-operation on his part. One of the first questions he will ask you is, "Doctor how long will I have to stay in bed?" Tell him frankly that you do not

* Read before the Section on Medicine at the Sixty-fourth Annual Session of the Mississippi State Medical Association, Jackson, May 12, 1931.

know the exact time that will be required and that the length of time varies in patients with the same amount of trouble, but the average case with the symptoms and findings that his case presents, usually are required to remain in bed from 6 to 8 months, or whatever time you think best to advise, and this depends on how soon his temperature and pulse return to normal and how well his condition responds to treatment. Do not make the serious mistake of telling the patient that he must stay in bed for any definite period of time for he will watch the calendar and inform you ahead of time just when his bed rest will be completed and then the trying time has come and you may have reached the point where you are going to lose the confidence of the patient. Now on the other hand, don't say that you are going to put the patient to bed for an indefinite period without explaining the way out on the other side. You might just as well tell him to get up and go on and die as soon as he can. Discuss with him the perspective course of treatment and tell him that he will possibly be in bed a few months. Then, if the progress of his case is satisfactory and his temperature has returned to normal for a period of two months, the expectoration has diminished noticeably, normal weight has been regained, the cough improved, and all other conditions are satisfactory, we will allow him to begin sitting up or recline on a comfortable chair 15 minutes each day. This will be increased five minutes a day until he is sitting up one hour in the morning and one hour in the afternoon and at the end of this time, if his condition remains satisfactory he will be allowed to walk about the house. After a short time you will allow him to dress and go to the dining-room to one meal a day and at the end of two weeks he will be permitted to go to two meals a day. At the end of another two weeks he may go to the dining-room for all your meals and may be able to walk about the house and the yard. After

following this routine for two or three months, the patient may begin taking daily exercise walking 10 minutes a day and increase five minutes each day until the exercise lasts three or four hours a day. A schedule something like this will give the patient something to look forward to with hope and give him something definite on which to base his fight. He must have a definite objective in view.

The patient and family must be prepared for the periods of activity that are sure to come and told that tuberculosis is a chronic disease, and runs an uneven course. They must be able to encourage, rather than discourage, the patient at these times. It is necessary for the physician to tell them what their attitude toward the patient should be and see that he obtains support in carrying out his program.

Now the arrangement of the room or porch should be discussed with the family and patient. Use either a well ventilated room or porch. Select a place that is satisfactory to the patient and convenient for the attendant. The next important thing in arranging an apartment for the tuberculous is to see that the room is plainly and simply furnished. It is best that no carpet be on the floor, curtains should not hang at the windows, and there should be as little furniture in the room as is consistent with comfort. The room should be so arranged as to prevent accumulations of dirt and infectious material and so that it may be easily cleaned. It is necessary that the patient have a comfortable bed, for he is compelled to occupy it 24 hours a day.

The diet should consist of plain simple foods. One of the first things that the patient thinks about when he is informed that he has tuberculosis is fresh air, eggs and milk. They should be taught that open air, milk and eggs are not cures for tuberculosis but only aids when used properly. Milk and eggs do not cure tuberculosis. Give the patient three well balanced meals

each day and, if he is underweight, a glass of milk may be given about 9 a. m. and 3 p. m.

I make it a rule to have the patient keep a list of the foods he takes at each meal and carefully check this list on each visit. I find this method very satisfactory for you can then make suggestions as to what foods should be added to or eliminated from the diet. The main thing to be considered in the diet is to allow the required amount of nourishing food and do not stuff the patient. One common abuse in the home treatment of tuberculosis is over-feeding the patient. There is no more reason for over-feeding a tuberculous patient than there is for over-feeding people in general and surely no one would advise such a procedure. In the home the friends are apt to base their judgment of the efficiency of treatment almost wholly upon the weight that the patient gains. They point with great pride to a fat, flabby dyspneic patient, thinking that such a condition is favorable to a cure. The patient should be kept in good nutrition; but above all things else, he should not be made fat.

One of the important things is to give the patient the correct attitude. He must be made intelligent, he must understand something of the nature of tuberculosis and the principles of treatment. He should know that tuberculosis is a disease that will yield to treatment, but that its cure is exceedingly difficult and that this difficulty depends not wholly on the pathology of the disease, but partly on the inability to secure proper co-operation on the part of the patient for a sufficient length of time to permit the tuberculous tissues to be converted into scar. He should be told that although the symptoms may all be gone, the pathological changes are still not complete, and that it requires a much longer time to convert his tissues into scar and secure a permanent arrestment. So there will be no misunderstanding, I usually tell

my patients that no matter if the physician should prescribe the best methods of treatment and the patient should co-operate to his fullest extent, there is a possibility that failure might result; but that such co-operation is the thing which is most conducive to success and it will often bring a hopeless case to a favorable termination.

A daily program should be devised. The patient should begin and end his day at definite hours. Regularity is essential to best results. In the sanatorium, if the patient has not slept he prepares for breakfast at the same time anyway. So should it be in the home. A patient can adjust himself to a regular routine and after a short time he will fall into it naturally. I tell my patients to arrange the hour for meals so that there is about five hours between them; thus, 7:00, 12:00 and 5:00. After breakfast the patient should be required to rest for one hour and then another rest hour before lunch and another say from one to two o'clock in the afternoon and observe another rest hour from four to five o'clock. And if the patient is having a daily rise of temperature, have him observe another quiet hour after supper. During these rest hours the patient should remain very quiet, no visitors allowed and he should not read during these periods. The patient should be ready for his night's rest at nine p. m. No excuse should be accepted for not retiring at the appointed time. After the patient is loafing about the house and later on taking his prescribed exercise these regulations as to time for meals and rest hours and time for retiring should be rigidly enforced. The patient must be instructed as to scattering infection. The family should also be instructed as to this danger. The patient should be provided with sputum cups and instructed how to change and use them. He should be told that all sputum and secretions from the mouth should be deposited in this cup. The infection is also scattered over the room by the patient

coughing or sneezing and to prevent this he should be instructed to use a paper napkin to cover mouth and nose when he sneezes or coughs, and immediately after using this napkin he should deposit it in a paper bag. Then two or three times a day, or as often as necessary, this paper bag containing the used napkins and the sputum cups should be burned. I do not approve of the patient using a cuspidor containing an antiseptic solution for the reason that patients and attendants will depend too much on the germicidal action of the antiseptic. The only safe thing to do is to burn these cups and napkins.

Children should not be permitted to stay in the room occupied by a tuberculous patient. The greatest contamination takes place immediately surrounding the patient and children should be especially forbidden to play on the floor of the apartment occupied by the tuberculous patient. The child may be taken into the room provided it is not allowed to play on the floor, or on the bed and providing the patient does not play with it.

There should be an accurate record kept of the patient's temperature and pulse rate. This record should be kept by the attendant or nurse and not by the patient. I usually have my patient's temperature and pulse rate taken at 10 A. M. and 4 P. M., leaving the thermometer in the mouth for five minutes. I arrange the charts so as to keep one week's record and file them so that I can readily check the records over a several month's period in a few minutes. There should be absolute co-operation between the patient and the physician. The patient must have confidence in the doctor and the doctor must have confidence in the patient, otherwise satisfactory results will not be had. The best method of obtaining the confidence of the patient is absolute frankness in discussing his condition and his treatment, and on first examination make it thorough and

impress upon the patient by this thorough examination the fact that you are familiar with tuberculosis and its treatment.

The most necessary thing in the treatment of tuberculosis in the home or in the sanatorium is rest, and tell the patient that all other measures will avail him nothing unless his rest is absolute and carried out over a considerable period of time. He must have rest of both mind and body. Therefore, all worries should be removed and his family and his friends should be told that no interference on their part will be permitted. Patients are frequently disturbed by neighbors and friends. Some will have a tendency to minimize his trouble and insist on him doing things which may entirely destroy his chances for recovery. The family very often become worried and despondent because improvement of the case is not as rapid as they think it should be. This can be prevented by telling them in the beginning of the treatment that the patient will have good days and bad days, good weeks and bad weeks, and that it will require considerable time to restore the patient to his former health, and we must ask their thorough co-operation and patience.

The patient may express some dissatisfaction as to the length of time when he is informed that it may require two or three years to make him well again, but these worries can usually be minimized by telling the patient that "you are young or comparatively young as the case may be and according to the average life of man you are supposed to live 30 or 40 more years. What does it matter if you lose two or three years and then your health is restored and you can live comfortably with your family and be able to carry on and return to your full earning capacity. In a few years you will never miss the time."

The doctor should visit the patient as often as is necessary to produce the best

results and for the best result frequent visits are necessary. The patient must be seen often enough to keep his interest stimulated, and to give him the necessary aid for cure.

When we visit the patient we should point out all improvements and tell him that he is making a good fight, and not discourage him by pointing out the things which he has failed to do. Keep him cheerful, hopeful, happy, and assure him that his condition is satisfactory and that if he will keep up the fight, that in a few more months he will be improved to such an extent that he will be up going and able to mix and mingle with his friends and carry on as he did before he was a victim of tuberculosis.

DISCUSSION.

Dr. B. B. O'Mara (Sanatorium): It has been a pleasure to listen to this timely and instructive paper of Dr. Toomer. He has covered the ground so well that a discussion is not necessary.

I merely wish to emphasize some of the statements made by Dr. Toomer, the first of which is that an absolutely regular routine of life is necessary for the patient. First, and most important of all, when the diagnosis is made, is rest in bed. Put the patient in bed and keep him there the same as you would in the case of typhoid fever, only keep him there longer. Have a regular schedule for the patient to follow; a rest period before and after each meal. If more convenient in the home regulate the rest hours from eight to ten A. M., and one to three P. M., and after supper, especially if the patient is running a temperature.

It should be borne in mind that a mental rest is almost as important as a physical rest. A patient that is prone to worry is perhaps the hardest type of individual with tuberculosis to treat, and the worst results can be expected in that type of patient. It is essential, therefore, to remove all causes of worry in the home, financial, family affairs, and otherwise.

Next in importance to rest is the diet, and as Dr. Toomer has mentioned, a well regulated simple diet is all that is necessary. It should be served at regular hours each day. This diet should consist of vegetables, some meat, milk, two or three cooked eggs a day, no raw eggs whatsoever, fruits and sweets. There is no virtue in stuffing the patient. It will simply lead to

an upset stomach or to an obese patient, and it will add more work for the heart to do. Fresh air is third in importance in the treatment and a well ventilated room will suffice for that. Follinger has stated sanatorium treatment offers about 25 to 50 per cent better results than the home treatment, and that is true. His percentage may be a little low; it may be greater than 25 to 50 per cent. I think perhaps it is, but as Dr. Toomer has mentioned, we have a number of these patients who can not have the advantages of sanatorium treatment,—a great majority of them can not and must depend on home treatment and their family physician. A combination between the two is essential, plus an optimism on the part of the patient that radiates hope, sunshine and good cheer if the cure is to be obtained.

Dr. May F. Jones (Laurel): I found I was on the program this afternoon for a discussion of Dr. Toomer's paper. I have listened with a great deal of interest to his paper, also to Dr. O'Mara's discussion of the paper.

There are one or two things I might say, especially since I left the sanatorium two years ago on account of ill health. The sanatorium treatment seems better in every way, but when we remember the number of patients we have in the state, and the few patients we can take in the sanatorium we must realize that very many, many patients have to be treated in their own homes.

I am afraid when I was in the sanatorium I had very little sympathy for the doctor back home, but I want to tell you since I have been out in private practice for myself, doing tuberculosis work entirely, I feel it is easy enough to control them in the sanatorium, but it is a very difficult thing to control them in their own homes. They do not have their regular rest hours even though the physicians do try to insist on it.

Another thing I want to mention here is I think we have a terrible problem in the treatment of the negro in the home, and I am afraid we doctors in this state and other southern states are not recognizing the importance of the negro in this problem. Only in the last few months I have examined three negroes and two of them are dead. All three of them had cures for more than a year, one of them two years, in a family of little children. I think our treatment should begin at the bottom instead of the top of the ladder. I think very few of the states have sanatoriums for the negro population. We have one, but it is only forty beds. If we can begin with our treatment of the negroes and eliminate

as far as we can their infection, we might hope, sooner or later, to get rid of tuberculosis in Mississippi.

Dr. Toomer (closing): I want to thank the parties who discussed the paper. I don't think there is anything else I care to add.

HYPERTENSION.*

T. R. BEACH, M. D.,

ELLISVILLE, MISS.

For many years hypertension has been the subject of much research and discussion, through which much knowledge has been gained, and great progress has been made in handling this universal devastating condition. It is now generally agreed, we believe, that hypertension is a symptom which, like fever, has no single etiology, and is a manifestation of some underlying disorder. Hypertension is one of the most intractable pathological conditions which the general practitioner is called upon to treat. It is rather remarkable that the clinical study of hypertension, a subject on which so much stress has been placed in recent years, should have had its inception only about fifty years ago with the first sphygmomanometer, and with the constant and intelligent use of this instrument, physicians have observed patients in increasing numbers who show hypertension, the causes of which are many and varied. High blood pressure has become a fashionable ailment, sometimes even an obsession, among the public, so that some people go about constantly speaking and, therefore, probably thinking continually of their "blood pressure," and ascribing to its evil influence, symptoms really due to other factors. Further, the mental worry induced by knowledge of the possible results of hypertension raises their blood pressure, and hence a vicious circle results, which demands treatment of the patient

by sensible optimistic encouragement and otherwise.

In the consideration of the subject of hypertension, we have first to remember that blood pressure is extremely variable in many individuals. As a general rule, however, the diastolic will be found to be much more constant than the systolic, and probably of much more prognostic importance. Since the technic for taking the systolic measurements were described at a much earlier date than the diastolic, it has, until late, been the habit with the profession to be satisfied with the taking of the systolic alone. This is unfortunate, and to those who believe the diastolic to be of greater significance, it is rather disappointing to observe how often no mention whatever is made of the diastolic pressure.

The diastolic tension represents the peripheral resistance to the circulation and therefore, indirectly is an expression of the tonus of the arterioles. The systolic tension represents the diastolic resistance plus the force of the left ventricle to overcome the resistance. Therefore, in the absence of thyrotoxicosis or aortic valvular disease a liberal pulse pressure is desired. (McCloud).

The diagnosis of hypertension in borderline cases requires considerable judgment. A diagnosis of hypertension is considered justifiable if an individual under normal daily activity shows a prolonged tendency to a systolic blood pressure of 160 m. m. of mercury or over, and a diastolic pressure of 90 or 95 m. m. or over. Some writers place the upper limit of normal systolic at 140 or 150 m. m. of mercury for men over 20 years of age and a limit somewhat lower than this for women. (Palmer).

Clinical evidences, however, are convincing that a certain degree of advanced blood pressure cannot in all cases have the same significance with respect to life duration, for the reason that temporary rises in

* Read before the Section on Medicine at the Sixty-fourth Annual Session of the Mississippi State Medical Association, Jackson, May 12, 1931.

blood pressure occur as a result of various temporary factors such as excitement, fatigue, and as seen in cases of so called "high-strung individuals." We believe, however, that the higher diastolic pressure is less influenced by these factors, and when found is very significant, and when the diastolic pressure is found to have a constant reading of 90 to 100 m. m. of mercury, that hypertension is present, regardless of whether the systolic is 140 or 160.

PROBABLE ETIOLOGY AND TYPES.

As stated above hypertension has no single etiology, but numerous types have been recognized and the direct cause in some of these types has been definitely established. Other types are still undergoing clinical study and research workers are as yet unable to agree as to the causes. The etiology in some of these may be understood by listing the recognized types.

1. The hypertension associated with congenital stenosis of the isthmus of the aorta.

2. That arising from arterio-venous aneurysm, which often disappears when abnormal connection between the artery and vein is corrected.

3. The endocrine types: (a) The hypertension that occurs in hyperthyroidism, which often disappears with the removal of a portion of the over-active thyroid gland. (b) The paroxysmal hypertension associated with tumors of the suprarenal gland in which after removal of the tumor, the blood pressure usually returns to normal and remains so. (c) Hypertension of the menopause, brought about by the lack of ovarian secretion, with a relative over-secretion of the adrenal and pituitary glands. This type is fairly easily recognized when we consider the age of the woman with the usual menopausal symptoms, as hot flushes, sweating, nervousness, palpitation, tachycardia, and change in the menstruation. Nillson classes this type with essential hypertension, and states that

when it continues for a period of years uncontrolled, develops into an organic condition with diseased heart, blood vessels and kidneys.

4. The infectious and toxic types includes the hypertension associated with any chronic foci of infection in the teeth, tonsils, accessory nasal sinuses, gall bladder, appendix and prostate and with intestinal intoxication. Yet some observers claim that foci of infection lowers the blood pressure because the general resistance and vitality has been lowered by such infection. Yet most of us, no doubt, have often seen the blood pressure fall to normal after removal of such infection. Likewise have we seen the blood pressure return to, or almost to normal, after active detoxicating treatment of patients, who upon first examination present a blood pressure of 200 or 210 systolic and 110 or 120 diastolic, intensely toxic, with heart not enlarged, vessels in fair condition, urine normal, pulse rate normal or practically normal, tongue covered with a heavy thick coating, headache and marked giddiness, anxious expression and possibly some mental confusion.

5. Sclerosis of the arterioles of the medulla. Cushing in 1901 drew the conclusion from experimental work that an anemia of the vasomotor center in the medulla caused a systemic hypertension. Anrep and Starling found that vascular lesions in the medulla which impaired the blood supply can produce a rise in the systemic pressure.

6. Heredity: Certain individuals present certain susceptibilities in their vascular responses, which are transmitted by inheritance. O'Hare in a series of cases, found a family history of vascular disease in 68 percent. Ohler stresses heredity and environment as prominent factors in hypertension, and finds that such is displayed early in life by flushing of the skin, cold, moist, cyanotic extremities,

fainting and dizzy spells, opistoxis and increased menstrual flow. There are many reports in the literature of several members of the same family having had hypertensive disease. Rosenblom reports ten or twelve members of one family having had high blood pressure. Cadbury, in a very extensive practice among Chinese students, states that he has rarely seen hypertension, either with or without nephritis. This is probably due to the simplicity of their life, and lack of nervous strain. O'Hare further states that in families in which there is a strong element of vascular disease, the parents should be told of the part played by heredity and should be urged to guide their children along the less strenuous walks of life and to advise them against excessive mental and physical exertion, excessive ambition, and obesity. This applies particularly to those children who show vascular instability and hemorrhagic tendencies early in life. He also states that this disease could be almost eradicated if the marriage of the children in vascular families could be prevented.

7. Renal Theory: Most cases of hypertension do not show evidence of serious renal disease and the patients often die from cardiac failure, apoplexy, or other causes. However, renal involvement may occur. The acute and chronic nephroses are of special interest because they usually do not show hypertension. In spite of the severity of the syndrome of malignant hypertension, renal impairment may be difficult to determine and usually develops only in the terminal stages. Profound changes, however, are present in the kidneys which are due to severe vascular injury, as the chronic glomerular nephritis and the arterioscleratic kidney, both of which are attended by hypertension. The acute glomerulonephritis of pregnancy, that is associated with a marked hypertension, toxemia and retinitis, is often seen in a woman with her first pregnancy, and

after delivery the blood pressure drops to normal and remains so, and two or three years later a normal pregnancy occurs without any rise of blood pressure. Other women of like circumstances develop chronic vascular disease. The vascular disease may have present before pregnancy, but after it became severe the blood pressure remained high and the condition in the arteries gradually became more marked. This would indicate that in a certain group of cases of eclampsia in which the vascular condition progresses the lesion may be vascular rather than renal.

8. Essential hypertension: McCloud states that the mere fact that the disease has been named essential hypertension, is evidence that the cause is unknown. He further says that it is now generally recognized as a definite clinically entity, being more clearly differentiated from other diseases in which abnormally high blood pressure is a symptom, and gives the most likely factors in producing it as: (1) heredity; (2) discordant social and business life; (3) mental and emotional strain; (4) infections and toxic conditions. Granger says: "I rather prefer to consider it more or less as a clinically entity, feeling that it is entitled to such consideration in the same light as several other diseases falling in the same category," and cites the following probable causes: (1) sclerosis of the medulla; (2) vascular neurosis and hyperirritability of the nervous system; (3) heredity and vascular neurosis; (4) endocrine disturbances; (5) vascular changes in the kidney; (6) obesity and infection.

The essential hypertension must be differentiated however, from the high blood pressure of other types that is merely transitory. It is extremely common and comprises a large percent of the hypertensive patients that we treat today, and carries a chain of progressive symptoms from the early stage of increased tonus or spasticity of smooth muscle of the mesial

layer of the arterioles, to the late or far advanced arteriosclerosis with the replacement of the exhausted muscular layer of the arterioles by fibrous tissue. In many cases it continues for years, even beyond the normal expectancy of life, and finally death occurs from some intercurrent disease. Others pursue a rather rapid course and seems to be extremely susceptible to cerebral and cardiac accidents. These accidents are averted only so long as the myocardium and cerebral vessels can withstand the strain of the continued high diastolic pressure.

Adams and Brown gives the following classification of essential hypertension; (1) mild benign; (2) severe benign; (3) malignant.

Mild benign; Diastolic pressure under 116 m. m.; no demonstrable impairment of function of heart, kidneys or brain; mild degree of vaso-constriction; arteriosclerosis of the retinal arteries; no hemorrhages or exudates in the fundi; moderate changes in the peripheral vessels; prognosis usually good.

Severe benign: Diastolic pressure usually above 115 m. m.; symptoms and signs indicating impairment of function of heart, kidney and brain; hemorrhages and exudates and marked vascular changes in the retinal vessels; well defined changes in the peripheral vessels; prognosis usually bad, depending on the degree of vascular degeneration of the essential organs.

Malignant; Diastolic pressure usually above 130 m. m. frequently above 150 m. m.; signs and symptoms indicating marked impairment of function of heart, kidneys or brain; changes in the fundus as, edema of the discs; marked vascular changes, hemorrhages and exudates; marked changes in the peripheral vessels; prognosis, average life less than two years.

SYMPTOMS.

The variety of symptoms of hypertension is one of the characteristics of the

disease. Some patients give no subjective symptoms whatever until the hypertension has advanced to the extent that cardiac failure supervenes. Others complain of shortness of breath on exertion and severe headaches. The headache is usually of two types; one is the true dull headache; the other is an acute lancinating pain, the head feeling as if it were about to burst and when associated with dizziness is often a warning of approaching cerebral hemorrhage or thrombosis.

Palpitation, tachycardia, and inability to lie on the left side are often complained of. The palpitation should receive close consideration for it is a symptom found in many nervous disorders, and the possibility of organic disease may be overlooked.

Giddiness or dizziness is a symptom often produced by stooping or coughing and may be most persistent and is usually associated with well marked general arteriosclerosis. Sudden attacks of definite vertigo if associated with vomiting, are usually of serious import.

Noises in the ears are of two kinds, one is the low pitched pulsation and responds very well to treatment; the other consists of various whistling, hissing, high pitched sounds and is present when arterio-sclerosis exists, and of course, does not respond to treatment.

Anginal pain is not uncommon, especially late in the disease, but the earlier symptoms as, substernal tension or pressure, produced by exercise, and relieved by rest, if given early recognition and treatment, will often delay for many years the onset of a fatal seizure.

The mental symptoms vary from nervousness, irritation and excitement to the very rare symptom of acute mania. The robust in the first few years of the disease often manifests unusual mental vigor, but with the onset of arterio-sclerosis, drowsiness, especially in the middle of the day,

often develops with failing memory, especially for recent events, and advances in relation to structural changes of the cerebral vessels.

Hemorrhages, usually retinal and nasal, are of common occurrence and often gives rise to great anxiety. The retinal hemorrhages often leave permanent impairment of vision. The nose bleeding is often alarming and difficult to control, yet it is often a blessing, possibly averting a cerebral catastrophe. Pains in the limbs are often complained of, and clutching sensations in the throat are a common symptom.

PHYSICAL SIGNS.

Early physical examination usually reveals very little more than an increase in the blood pressure. Before hypertrophy of the left ventricle is recognizable, possibly the most constant cardiac sign is the accentuation of the aortic second sound. The early changes in the peripheral vessels are usually noted earlier in the thin sallow individual than in the plethoric sufferer. Douthwait calls attention to the fact that when the radial artery appears to be normal to the examining finger, the brachial is often grossly abnormal, and that the sensation imparted is that of a leathery toughness, rather than the hard pipe-stem condition common in senility. The retina should be examined in every case for here may be found arterial disease long before it is apparent elsewhere.

TREATMENT.

The treatment of high blood pressure should never begin until we have exhausted every means of diagnosis that we have at our disposal in an effort to determine the underlying cause. No regular routine treatment can be outlined; each case should be considered in relation to type, the severity of symptoms and the physical signs present. In uncomplicated hypertension we should, therefore, direct our treatment along such lines as to prevent or prolong complications that are just as sure to follow the progressive uncontrolled types as

the night follows the day, and in doing this we are giving relief to many of the troublesome symptoms that would otherwise allow the patient to become a complete invalid. We should acquaint ourselves thoroughly with the patient, his mode of living, as to ambition, mental and physical effort in the performance of his daily duties, and instruct him in a manner that he may learn to relax. Night work should be avoided, if possible, and he should have eight or ten hours undisturbed sleep and rest at night. A mid-day rest of one or two hours, preferably after the noon meal, is especially good. Week end rests in bed should be encouraged as often as required, depending upon symptoms and stage of development. One or two weeks hospital rest every few months in the advanced stage is often very beneficial. The excessive use of tobacco and alcohol is contraindicated. The bowels should be kept open, one or two soft eliminations each day is sufficient. Excessive drastic elimination, not only is of no special benefit, but often harmful.

Diet: The selection of a diet is far less important than previously thought, and should be principally fruits, carbohydrates and vegetables. Meats in moderation are permissible two or three times a week, and the patient should be instructed to eat slowly, and always stop before the appetite is completely satisfied. Salt is permissible in food but none should be added at the table. If there is a renal or cardiac complication, then it should be used very sparingly.

Drugs: It is very doubtful as to the amount of real benefit derived from medicinal treatment until complications arise that demand specific medication. Here we are impressed with the statement of Dr. Walter A. Bastedo, in the introduction of his *Materia Medica*, "Medicine sometimes cures, it often relieves, and always consoles." Yet we must guard our treatment carefully lest we forget the warning of

the late Dr. W. H. Dickinson, that, "the great danger of chronic nephritis is that someone will find it out and try to treat it."

We have found good results in a fair number of essential hypertensives with the sulphocyanates, but these should be used cautiously if there is cardiac or renal disease. If cardiac or renal disease is present, we often find great relief by the use of monopotassium diacetyl citrate (di-citrin). It is not a renal irritant; does not depress the heart's action or the nervous system, and when albumin or casts are present, we usually see a notable decrease or entire disappearance. The iodides are indicated only when we find a positive blood Wasserman. The nitrites are useful in cases associated with anginal pains. When cardiac failure threatens digitalis is indispensable. Mistletoe is said to be very effective in relieving the severe headaches and dizziness of hypertension. The bromides and luminal are effective in quieting the nervous system. In acute alarming cardiac or cerebral symptoms, venesection or lumbar puncture is indicated. Diathermy is recommended by some and appears to be gaining popularity among those who have given it a thorough try-out. Liver extract within the next few years will probably be one of our most popular remedies.

No hard and fast rule can be set for the treatment of hypertension, but each case must be considered in relation to type, symptoms and physical signs, and when such consideration has been given to every case that presents itself for treatment, great relief will come to our patients and life will be made happier for the hypertensive.

DISCUSSION.

Dr. W. C. Chaney (Memphis, Tennessee): Dr. Beach asked me to discuss hypertension from the standpoint of involvement of the heart. Before I start, I want to say one thing, that due to the enormous amount of literature that has been written on hypertension, and the fight that has been going on between certain groups as to the treatment and everything else pertaining to

hypertension, until, at the present time,, I don't know of any subject more difficult to handle—let's say two subjects, in the field of medicine—than angina pectoris and hypertension.

I want to congratulate Dr. Beach on the able way in which he has discussed this subject.

The number of deaths in the United States due to heart failure associated with hypertension is estimated at 70,000 per year, while about 70,000 more die from other complications of high blood pressure.

The form of heart disease so frequently associated with hypertension is usually discussed under the headings of chronic myocarditis, hypertensive heart disease, chronic myocardial disease, senile heart cardiac hypertrophy, and dilatation.

Cabot was responsible for the term "hypertensive heart disease," but, unfortunately, as soon as we thought it was settled that hypertension entirely explained this type of cardiac condition, Christian and others presented for our consideration very logical arguments that there must be some other fact or factors associated with hypertension to bring about this condition. To quote Christian: "I do not feel at all sure that in patients with hypertension, the hypertension is the ultimate cause of the cardiac hypertrophy and dilatation and eventual cardiac failure." The term "hypertensive heart disease" would, therefore, seem unsuited to this variety of cardiac affection. Likewise, the name "chronic myocarditis" appears inappropriate, since careful pathologic study does not reveal any inflammatory process. Until more is known about this type of heart failure, I think the term suggested by Christian, "chronic myocardial disease," is most suitable.

Signs of cardiac failure appearing after the age of forty are very suggestive of chronic myocardial disease. Perhaps the most common complaint of these patients is dyspnoea. Other very important symptoms are attacks of paroxysmal dyspnoea, precordial pain of an indefinite nature or due definitely to angina pectoris, and attacks of palpitation.

Contrary to general opinion, the treatment of chronic myocardial disease is, in the majority of cases, very satisfactory. The physician can, by conscientious effort, add many years of comparatively good health to the lives of these patients.

Favorable prognosis, however, must be given only after very careful study of each individual case. The physician who has had broad experience with this disease knows that there are a

few signs and symptoms which, when found, mean that the patient will live, at most, only a few years. These are:

1. Certain electrocardiographic findings;
2. Certain retinal changes;
3. Pulsus alternans;
4. The appearance of a gallop rhythm;
5. A diastolic blood pressure over 130 m.m.
6. Evidence of damage to the brain or kidneys.
7. Cardiac asthma.

Briefly, the complications of chronic myocardial disease are:

1. Congestive heart failure;
2. Apoplexy;
3. Angina pectoris or coronary thrombosis;
4. Nephritis with uremia.

The most important points in the treatment of hypertension are:

1. Be careful not to develop in the patient an anxiety neurosis;
2. Impress upon the patient the necessity of avoiding stress and strain. Tell him that the treatment must be carried out over a period of years, and not weeks.
3. Make the patient get plenty of rest. Divide his day into two parts by a mid-day rest.

Dr. T. E. Wilson, Jr. (Jackson): I feel that the latest advance that has been made in the study of cardio-vascular disorders is the recognition of hypertension as being a symptom rather than a definite clinical finding.

Much can be done for people with hypertension if the condition is recognized early; little can be done if it is recognized late.

Just when to call blood pressure hypertensive and when normal is debatable. Dr. Palmer, who worked with a group of Harvard students over a rather long period of time, and studied these records over a long number of years, has said a figure of 140 to 150 is definitely hypertensive in early youth. These people are more apt to become hypertensive ten years later.

Hypertension, of course, produces heart disease, and heart disease also produces hypertension. It is difficult to determine cause and effect in these cases. Every one of these people should have a thorough clinical investigation,—I agree with Dr. Beach on that,—before an attempted treatment is begun, because most of the cases, I feel sure are due to foci of infection

or else due to glandular disturbances,—disturbances of the glands of internal secretions. After these foci of infection are located, with systematic treatment, most of these people will respond very satisfactorily indeed.

Dr. P. W. Rowland (University): I very much enjoyed the doctor's good paper. I am very much interested in the subject of hypertension.

The hypertension of senescence is to my mind, purely compensatory. Nothing much can be done for these cases. They generally die of acute infections of some sort, gastrointestinal or pulmonary. I am, therefore, particularly interested in the hypertension of the young.

Fifteen or twenty years ago I began the systematic physical examination of students at the University, and I found a considerable number of those young fellows with a hypertension of 150 to 210. Careful and repeated examinations in every instance failed to reveal any distinct evidence of organic disease. I do not know of a single one of those boys who is alive today. You lost one of them here in the city of Jackson, Dr. Basinger, who died with cerebral hemorrhage. This experience has led me to be rather pessimistic as to the outcome in this class of cases, so much so that I am inclined to believe that a young fellow with a hypertension, as I have indicated, can expect to live not more than ten or fifteen years. We must study the cardiovascular and renal systems in the young, if we are ever to learn the real cause of hypertension in the middle aged.

I want to make a particular point in the treatment of these cases. Grant that we have drugs that will lower blood pressure, may it not be probable that we are doing harm rather than good? I look upon the hypertensive individual as somewhat analogous to the person with high temperature from an acute infection. In the case of acute infection the temperature regulating mechanism is set to a higher point than normal, and is prone to oscillate around a certain point, and when below that point for any length of time, the patient loses vitality, resistance, and is not so likely to recover. So with hypertension: the cardio-vascular tone is raised to compensate for increased resistance, and when the tension is lowered, by the use of drugs particularly, loss of vitality follows. I find that a great many doctors are now using sodium sulfocyanate in their practice. We tested out this drug in our laboratory on four dogs, weighing each approximately fifteen kilograms. As much as twenty-two grains, given intravenously to each of the dogs, failed to reduce the blood pressure; in fact, in two of the dogs it was raised. No change in pulse rate

was noted. In your hypertensive cases you are using one and a half grains three times a day. I believe that the drug treatment of this condition is ineffective, and often harmful. Cut down work and diet, and live the simple life.

Dr. T. R. Beach (closing): I want to thank the gentlemen for the discussion of the paper, especially Dr. Chaney, from Memphis.

I want to say just one word about the discussion of Dr. Rowland. It would be interesting to know just how many of those young school boys he spoke of as having hypertension in their teens or early twenties,—in just how many of them this hypertension was due to renal involvement. I think probably a big percentage of the hypertension in the younger individuals is due to renal involvement, and if those young people were watched through their lives and a careful check made of their urine, I believe you would find a large percentage of the cases in young boys and girls is due to renal disease.

LOBAR PNEUMONIA AND ITS TREATMENT.*

E. L. WALKER, M. D.,

MAGEE, MISS.

Pneumonia is a constitutional malady producing an acute infectious inflammation, involving the vesicular structure of the lungs.

Synonyms: Croupous pneumonia, pneumonitis, fibrinous pneumonia and lung fever.

ETIOLOGY.

The Exciting Cause.—Lobar pneumonia is due in a large majority of instances to the pneumococcus. Other bacteria may occasionally act as the exciting cause, but such are exceptional. Perhaps the most important of recent contributions to our knowledge of pneumonia is that of Dochez and Gillespie, who showed that pneumococci could be divided into four "types" based upon well defined immunological differences. In a series of 720 cases of lobar pneumonia studied at the Rockefeller Hos-

pital, pneumococcus Type I infections were the most frequent, comprising 34 per cent of all the cases. About 33 per cent fell into the Type II group and 10.8 per cent in the Type III group; 22 per cent were Type IV infections. In the series of 1082 cases of lobar pneumonia studied by the writer in the wards of Bellevue Hospital, 993 cases received careful bacteriological study; 911 of these, or 91.8 per cent, showed pneumococci in the sputum or other body fluids. Streptococcus hemolyticus was found in 53 cases and streptococcus viridans in 21 cases, and there was one case in which the bacillus influenzae was isolated in pure culture. Four cases were caused by the Friedlander bacillus. In one case staphylococcus aureus appeared to be the exciting cause.

In 911 cases of pneumococcus pneumonia in Bellevue Hospital the various types of pneumococci were represented as follows:

	Number of Cases	Incidence Per cent
Pneumococcus Type I	346	38.0
Type II	165	18.1
Type III	137	15.0
Type IV	263	28.9

The incidence rates for the various types admitted to Bellevue Hospital differ somewhat from the Rockefeller Hospital figures. If the Rockefeller Hospital series and the Bellevue Hospital series are combined we have the following:

	Number of Cases	Incidence Per cent
Type IV	422	25.9
Pneumococcus Type I	592	36.5
Type II	402	24.6
Type III.....	215	13.2

The incidence of the types varies considerably from year to year. During epidemics of influenza there is a marked increase in the incidence of pneumococcus Type IV infections.

EPIDEMIOLOGY.

Generally speaking, lobar pneumonia is an endemic disease; it may take on epidemic form, however, under certain cir-

* Read before the Section on Medicine at the Sixty-fourth Annual Session of the Mississippi State Medical Association, Jackson, May 12, 1931.

cumstances. It has long been known that many healthy individuals are pneumococcus carriers and, reasoning from this, it was formerly assumed that most cases of lobar pneumonia were autogenous infections. During the past few years, however, important studies on the epidemiology of pneumonia have been carried out at the hospital of the Rockefeller Institute. In these studies cultures were made from a large number of healthy mouths in order to determine the relative incidence of the various types of pneumococcus.

In a study of 299 individuals the relative incidence of the four types were as follows:

	Cases showing Pneumococci	Incidence Per cent
Pneumococcus Type I	1	0.8
Type II	0	0.0
Type II (atypical)....	22	18.9
Type III	34	28.1
Type IV	64	52.9
Cases showing no pneumococci	178	
Total	299	

From these figures it is clear that pneumococcus Type I and Type II are practically never discovered in the buccal secretions of healthy individuals. On the other hand, pneumococcus Type II (atypical), Type III, and Type IV are frequently found in the healthy throat.

When it is recalled pneumococcus Type I and Type II cause approximately 60 per cent of all lobar pneumonia, it is fair to conclude that pneumonia due to these types is not an autogenous infection, but follows invasion by these organisms from without. On the other hand, it is probable that a considerable proportion of the pneumonia caused by pneumococcus Type III and Type IV is traceable to organisms which the patient has been carrying for some time in his mouth.

During convalescence it is only in exceptional cases that the same type of pneu-

mococcus with which the individual is afflicted during the disease persists in the mouth for any considerable time after recovery. Usually the infecting organism disappears in from three to four weeks after the illness. After it disappears, either no pneumococci are present at all, or the infecting type has been replaced by one of the types usually found in the normal throat. These observations afford still further evidence that infection in pneumonia, particularly in Type I and Type II cases, occurs from without.

PNEUMOCOCCUS CARRIERS.

Carriers of virulent pneumococci probably play an important part in the dissemination of the disease. The Rockefeller Institute workers showed that a considerable percentage of persons intimately associated with patients suffering from pneumonia harbor in their mouths pneumococci of the same type as those in the patients. Whereas it was shown that in a large series of healthy individuals who had come in contact with cases of lobar pneumonia, 13 per cent were pneumococcus Type I carriers, and 12 per cent pneumococcus Type II carriers. It was also shown that the pneumococcus is more frequently present in the throats of persons who have had pneumonia than in those of individuals never attacked by the disease; and that the type of pneumococcus found in the throat corresponds to the type of pneumococcus previously isolated from the patient.

FACTORS PREDISPOSING OF PNEUMONIA.

Age: The most marked susceptibility to pneumonia occurs at the beginning and toward the end of life. Young children are more susceptible than older ones. The susceptibility increases gradually during adult life, becoming greatest in old age. The United States Census report shows, however, that 51.2 per cent of all deaths from pneumonia occur between the ages of 20 and 65, indicating that pneumonia also takes a heavy toll of human life during the years of greatest activity. The economic

significance of this fact should not be overlooked.

It is interesting to note the relation of age to the incidence of pneumococcus type. In the Bellevue Hospital series Type I infections, by far the commonest type encountered in young people, comprise 50.7 per cent of all cases that occur between the ages of ten and twenty years, 44 per cent of all cases between the ages of twenty and thirty years, and 42.5 per cent of all cases between the ages of thirty and forty years. During the later decades Type I infections become progressively less common: constituting only 20.6 per cent in cases over sixty years of age.

In a series of 329 Type I pneumonias studied in Bellevue Hospital, 88.7 per cent occurred in patients under fifty; only 11.2 per cent occurred in patients over fifty. On the other hand, Type III infections are rare in young people, but common in middle aged and elderly people. In patients under thirty years, less than 7 per cent showed Type III infections; while in patients over sixty 41.2 per cent were referable to pneumococcus Type III.

In contrast to these variations in the incidence pneumococcus. Type I and Type III infections, the incidence of Type II and Type IV pneumonia was very little affected by age.

Sex. Men are more frequently affected than women, probably because they are more exposed to the weather. The incidence of Type I and Type II pneumonia is distinctly higher in males than in females, while women appear to be particularly susceptible to Type III pneumonia. In the Bellevue Hospital series the incidence of Type III pneumonia was three times as great for women as men. The incidence of Type IV pneumonia is also higher in women than in men. The difference in type incidence for the sexes can probably be explained by the fact that men are more exposed to the virulent types than

women; the latter when they do contract pneumonia, are more frequently infected with the types found in the healthy mouth.

Race: Negroes are distinctly more susceptible to pneumonia than the white races. This was well demonstrated during the World War when the negro troops suffered much more than the whites from pneumococcus infections. This, however, is disputed by many writers.

Occupations and Mode of Life: Pneumonia, like tuberculosis, is most common the poor and badly nourished. Individuals who are exposed to hardships and inclement weather are particularly liable to the disease. In the Bellevue Hospital series day laborers and sailors were the two largest groups of wage earners represented. Pneumonia is more common in the cities than in the rural districts. This is probably due, however, not so much to the actual living in the cities as to the existence of the slum conditions in the centers of large population.

Personal Condition. Fatigue is one of the most important predisposing factors, especially when chilling of the body takes place after profuse perspiration. Hunger is another important factor. Debility and emaciation render individuals more susceptible to the pneumococcus. In our large cities alcoholism is responsible for a great many cases.

Weather. Sudden drops in temperature predispose to pneumonia and expose to cold of any kind is undoubtedly an important factor. As previously pointed out, the combination of cold and dampness, such as occurs in the early spring, affords the condition most favorable to contracting the disease.

Previous Attacks. Pneumonia shows a very definite tendency to recur in some individuals. The patient's immunity against the pneumococcus is high immediately after

the attack, but apparently it does not persist for more than a year.

TYPE OF INFECTION.

The investigation of Cole at the Rockefeller Institute first showed the relation of pneumococcus type to the death rate in lobar pneumonia. Cole's figures for the four types are as follows:

	Percent
Pneumococcus Type I	25-30
Type II	25-30
Type III	45-50
Type IV	15-20

In the Bellevue series the death rates for types differed somewhat from the figures of Cole:

	Cases	Deaths	Death Rate
Pneumococcus Type I	175	41	23.4
Type II	76	31	40.7
Type III	60	24	40.0
Type IV	136	31	22.8

The high death rate in Type III pneumonia can be explained in part by the fact that this infection occurs mostly in middle age and elderly people. In the Bellevue series the death rate for pneumococcus Type III in patients under thirty years of age was only slightly higher than that for the other types.

TREATMENT.

The serum treatment in properly typed cases is meeting with good results in hospital practice. It is well to note, however, the different reactions in administering serum:

(1) The true anaphylactic reaction; (2) the thermal reaction (3) serum sickness.

1. The Anaphylactic Reaction. When individuals are highly sensitive to horse serum, symptoms of anaphylactic shock may appear fifteen to twenty minutes after the introduction of serum. The patient suddenly becomes dyspneic; there is flushing of the face and asthmatic breathing, followed by sweating, urticaria, and general anxiety. The symptoms can usually be relieved by the prompt hypodermic injection of 0.5 c.c.

of adrenal in 1:1000 solution. Shocks of this kind occasionally end fatally, but this occurs only in cases where precautions have not been taken. If patients sensitive to horse-serum are properly desensitized symptoms of anaphylactic shock will either be absent entirely or appear only in a mild form.

2. Thermal Reaction. Sometimes the injection of antipneumococcus serum is followed by a "foreign protein" reaction, which is quite different in character from the anaphylactic reaction. Thirty or forty minutes after the injection of the serum the patient has a chill, which is followed by a rapid rise in temperature. The temperature remains high for several hours; then there is a rapid drop, accompanied by profuse perspiration. This type of reaction is comparatively rare after the injection of Type I serum.

3. Serum Sickness. This occurs in about 75 per cent of all patients who receive antipneumococcus serum. The severity of serum sickness depends in part on the amount of serum administered. Symptoms usually appear seven to fourteen days after the injection of serum, though they may come earlier. The patient breaks out in a profuse urticaria, the temperature rises to 101 or 102, and often there is pain and swelling in various joints. These symptoms persist for a few days and then disappear.

Treatment with Solution of Pneumococcus Antibodies. According to Cecil, Larson and Conner the best results have been in Type I cases. It has little if any effect on the Type II cases. This line of investigation is still in progress and affords a method of providing the patient with protective substances in a highly concentrated and purified form.

Pneumococcus vaccine has been recommended as a therapeutic measure, but there is very little experimental or clinical evidence in its favor. The immune response to pneumococcus vaccine is comparatively

slow. Even when the vaccine is injected intravenously, antibodies do not appear in the blood until a week or ten days later. The striking effect sometimes observed after the intravenous injection of pneumococcus vaccine is probably non-specific in character.

Chemotherapy in various forms has been tried in the treatment of lobar pneumonia. When treatment is instituted, be guided by the fact that you are not to treat pneumonia but a patient with pneumonia. Solis-Cohen and others have advocated the use of optochinbase and have reported favorably on its therapeutic value in the treatment of lobar pneumonia, while others have reported not so favorably.

It is well in the beginning, wherein the tongue is coated and the gastrointestinal canal is deranged, to give a mild purgative. Temperature, cough, dyspnea and pain, restlessness and insomnia are to be controlled by appropriate methods, care being taken to safeguard the stomach and bowels. For the temperature, if around one hundred and four or above, the use of ice bags and, in selected cases, an occasional antipyretic are of value; for cough if too severe, small doses of either paregoric or Dovers powders act well; for dyspnea and pain, counter irritations to the chest and morphine hypodermatically answer well in many instances. Some advise the use of oxygen but too much should not be expected from this remedy, as there is some additional factor besides the mechanical one of consolidation of the lungs producing the dyspnea, for the consolidation is just as marked immediately after the crisis, while the dyspnea is wonderfully relieved. Someone has said "fresh air bears about the same relation to canned oxygen that good porter house steak does to embalmed beef."

Restlessness and insomnia is best controlled by sulphonal, trional sodium amy-tal, sodium bromide, and some times by the combination of strychnine with trional.

Whiskey, judiciously given, often relieves cough, dyspnea, restlessness and if pushed produces sleep.

Frequent examinations should be made of chest, blood pressure and urine. By doing this we often detect complications in their incipency, the most frequent complication being that of the heart.

In the aged, feeble or those accustomed to the use of alcohol a stimulant should be given for the onset and I know of no better stimulant than whiskey.

Other indications calling for stimulants are frequent, feeble, intermittent or irregular pulse. Delirium and muscular tremor immediately following crisis and the period of collapse can often times be successfully handled by the use of hypodermoclysis of normal saline solution and camphorated oil hypodermatically. Whisky, strychnine and hot applications to the chest and extremities stimulate circulation and aid materially in the recovery from shock. A few hours of honest to God work on the part of the doctor and nurse will often times save a life, where on the other hand if we depend on some drug to act our patient will die.

It is well again to mention frequent examinations of the chest as the heart is responsible for more deaths in pneumonia than all other organs combined. If it is detected that the heart muscle is failing, I know of no drug that acts quite so well as digitalis in large doses. We often find that in many cases of pneumonia digitalis fails to influence the heart, this is very likely due to a high body temperature producing a partial paralysis of the vagus center and endings in the heart.

Until more is known about the specific treatment of pneumonia we must rely on such remedies that we know will act in a given length of time upon certain organs that require stimulation or depression, as the case may be, until nature can come back sufficiently strong to handle the situation.

During convalescence the diet should be highly nutritious, stimulating tonics should be administered and if consolidation shows any tendency to linger, iodides should be given internally.

SUMMARY.

- A knowledge of your patient.
- Frequent examinations.
- Plenty of fresh air.
- Plenty of water.
- A nutritious, easily digestible diet.
- Well selected drugs.
- A good nurse.
- A conscientious doctor.

DISCUSSION.

Dr. G. W. F. Rembert (Jackson): I shall try to discuss the treatment of lobar pneumonia. The doctor has set forth the etiology very splendidly and I shall confine my remarks to treatment.

In treatment consideration goes first to those agencies which are most likely to take care of the cardio-respiratory conditions, and thence to chemicals that might have a definite destructive effect on the pneumococcus, and then the matter of serum.

The doctor brought out that unquestionably the matter of rest is of the utmost importance in the treatment of pneumonia. A patient with lobar pneumonia should be kept flat on his back, and Moss and Howard report a case of the sudden death of a patient who was raised so his physician might better listen to the heart and lungs. Plenty of fresh air, a diet that is nutritious and easily assimilated, containing the dominant carbohydrates, seeing that the patient gets three to four liters of fresh water a day will usually take care of the situation with the addition of general relaxers, such as codein preferably, morphine very sparingly. So far as those objects, chemicals, probably mercurochrome or optamagin may possibly have some value. There is no question about it. Mercurochrome has been set aside by many, I think, as probably not having much value.

Then comes the question of the general cardio-respiratory stimulants and in that it becomes a matter of digitalis, and I think there is getting to be more of an opinion that digitalis is not advisable from the very beginning but should be reserved for those cases showing a cardiac involvement. We think now death is probably due more to respiratory rather than cardiac condi-

tions. Many men question the advisability of starting digitalis in the very beginning. The use of glucose is favored by most men. The matter of the use of oxygen is to be considered. Where necessary give three to five liters of oxygen.

Then we step to the matter of serums. I am sorry that I do not have time to go into that.

Dr. Randolph Lyons (New Orleans): I would like to discuss for just a minute the problem of pneumonia as seen, for instance, in the East. For example, in the South, two years ago there was a pneumonia commission instituted to investigate isolation and hospitalization of pneumonia patients and the facilities for so doing throughout the country, and it seemed in the East, particularly in New York, Boston, Baltimore, Philadelphia, it is necessary to have a large number of wards, sometimes a whole wing, in which to house these patients and isolate them. They wrote down to New Orleans for us to investigate the same situation, and I was on the committee to investigate that situation at Touro Infirmary, and we found we had no such problem. We didn't have enough cases of true lobar pneumonia to fill half a dozen beds at one time. The same thing was true at the Charity Hospital. It seems that the problems are not exactly alike. We are more fortunate in the South, it would seem, than they are in the East.

Another point that came up was this: All the statistics we have heard have come from the North and East, from New York and Boston chiefly. They have found various types. How many of us have had typing done in a sufficiently large number to know whether we have the same types as they have in New York?

When I was in Bellevue a few years ago they had comparatively few Type IV. cases. Taking all the other cases. Type IV would be about one-third. In the investigation of that subject at the Charity Hospital, we found our highest group was the Type IV. Now, Type IV, fortunately, is less virulent than the other types, so I think the question we all have to realize is we have a little different problem to deal with than they have in the East, and we will have to get up our own statistics.

The next point I would like to bring out is the treatment. If we are dealing here more frequently with Type IV, we haven't got quite the same use for these serums as they have, for instance, in the North. I see relatively few Type I cases. In those I have seen I have used Type I serum with pretty good success, but in most of those cases, before I gave the serum, I made a note I thought they would get well anyway. I don't know whether the serum did it or not.

When it comes to mixed types, Types I, II, and III, I think probably the best agent we have so far as the pneumococcus antibodies. So, if you have cases of that type, if you give it early enough, the results have been pretty satisfactory.

I can't work to any statistics where the mortality is reduced to 20 per cent, and feel they carry a great deal of infection, but I do believe one of the most valuable services in recent years is the use of oxygen. I think oxygen has helped us a great deal in our therapeutics. The recent suggestion of Henderson of the use of carbon dioxide in the disease may be of great value, provided you get the case early enough. By giving this you can prevent this anaphylaxis. This means you have got to see the disease early, but if you don't you can use all the carbon dioxide in the world if you have got a consolidation present, and you will get no results.

Dr. Walker (closing): I want to thank the gentlemen for this discussion of my paper, and several new thoughts possibly have been brought out which I didn't bring out.

Now, I am an advocate of digitalis. I have used it all my life in practice, and I mentioned in the paper about the use of digitalis. Many a good drug, and also digitalis, does not act with a high body temperature. Don't forget that. Then you have got to have a heart that digitalis will act upon. What I mean by this, a heart that will fail or is failing too fast. You have got to have that. It has nothing to do with the heart in the beginning of pneumonia, unless that heart has failed under other circumstances before the development of pneumonia.

As to the use of whisky, that is condemned by some. I condemn it in certain cases. There are cases of pneumonia in which no treatment is needed; they will get well anyhow; give them some water and rest and something to eat and they will get well. That is all he needs. But I mentioned in there in case of the feeble, I know of no stimulant better than whisky. Strychnine and other drugs I have used do not seem to serve as well as whisky judiciously used. Know your man before you start your whisky. Some people can't take as much whisky as others. You can find that out by starting with small amounts. Now, as to the place of getting it,—all I can say is, know your neighbors. That is the only advice I can give.

THE USES OF SODIUM ETHYL-1 METHYL-BUTYL-BARBITURATE (PENTOBARBITAL-SODIUM) IN MEDICINE AND SURGERY.*

GEORGE F. CARROLL, M. D.

BLOXI, MISS.

Within the past two years the employment of derivatives of barbituric acid has markedly increased due to close study and extensive experimentation in many places, chiefly, in the United States. Literature is becoming voluminous. Lundy quotes some four hundred and sixty-six references.¹

Derivatives of barbituric acid have long been known as sedatives and hypnotics, but it is only recently that research has made available one or more that fill satisfactorily a long felt want. While our experience has been gained through the employment of several derivatives of barbituric acid, this report will deal chiefly with one in particular which has been found most satisfactory, and the others mentioned only in a comparative sense. Sodium ethyl-1 methyl-butyl-barbiturate is known commercially as pentobarbital-sodium (Abbott).†

Pentobarbital-sodium, an isomer of sodium iso-amyl-ethyl barbiturate, is about twice as potent as sodium amylal, acts in a shorter time, and is essentially sedative.¹ Hypnosis can be secured but is of much shorter duration than that of sodium amylal, and less frequently followed by restlessness or delirium.

USES.

This preparation finds its chief field of usefulness as a sedative for preliminary medication to local, general and spinal

*Read before Harrison-Stone-Hancock Counties Medical Society, May 6, 1931.

†When first offered this product was christened "embutal" later changed to "nembutal" pentobarbital-sodium and is supplied in 1½ grains capsules for oral and rectal use and 7½ grains ampoules, for intravenous use.

anesthesia. In preparing patients for operation as in emergencies, accidental and traumatic injuries, the rapid effect, small dosage and short duration of effect is advantageous. While pentobarbital-sodium is not intended as a lone anesthetic, properly graduated dosage will produce a degree of anesthesia under which much can be done without additional agents being employed. In properly selected cases under skillful manipulation, extensive surgery may be done with the employment of local infiltration, or a very small amount of inhalation anesthesia. Its use in local and spinal anesthesia has been found to raise the tolerance to normal and reduce to a minimum the liability of disagreeable reactions and sequelae. It has been found that the administration of $1\frac{1}{2}$ grains in capsule orally, the night preceding the operation, 3 to 6 grains with or without morphine and atropine injection, one hour before operation, brings the patient into the operating room somnolent but responsive, free from apprehension and fear, and requiring a very small amount of inhalation anesthetic to induce complete surgical anesthesia and is accomplished rapidly and without excitation. Recovery is rapid, due to the small amount of anesthetic employed, and is usually unaccompanied by nausea or vomiting, the period of sedation lasting several hours. There is no way of accurately determining the extent of damage done by psychic shock preceding operative work. This condition is most apparent in children and nervous, apprehensive adults. That it is quite considerable is made evident by its almost complete absence in those patients treated with pentobarbital-sodium. The dread of an operation when carefully analyzed usually means fear of the anesthetic. The majority of patients who have undergone operative manipulation know very little concerning the actual operation or what was done at the time, but most of them retain a vivid recollection of the anesthetic, pre-operative as well as post-operatively, and I recall but few in-

stances where this particular experience was considered a pleasant one.

Pentobarbital-sodium may be used orally, rectally, intramuscularly or intravenously. Rectally the dose must be increased and the pre-operative time of administration accurately gauged. Where time is an element of consideration, the intravenous method is the most satisfactory. In this method the injection of a solution containing a measured quantity of the drug, results may be obtained with a nicety and accuracy that is impossible in any other method. Considerable latitude in dosage was found necessary due to the individual reaction. Effectiveness was observed to vary with age, general physical condition and the dose required to produce sleep was best determined by the rate at which the subject became unconscious. A solution containing 50 mg. ($\frac{3}{4}$ grs.) per c.c. injected at the rate of 1 c.c. per minute will produce unconsciousness within two or three minutes, and seldom is it necessary to administer more than 3 to 5 grains. The maximum in our experience has been $7\frac{1}{2}$ grains (0.5 gram.), which produced a deep hypnosis, and in some cases complete anesthesia. This dose is considered seldom necessary as it has been found satisfactory to depend upon a small amount of inhalation anesthesia to produce muscular relaxation. It is by this method that effect can best be estimated and the injection discontinued immediately upon the desired effect being obtained. It is found expedient to engage the patient in conversation, continuously during the injection time, and in that way become immediately aware of the effect of your dosage. It is amazing when first observed how quickly the patient passes into an apparently normal deep sleep. The measured dose of the drug does not always cause complete anesthesia. In such cases the patient when undisturbed has all the appearance of being anesthetized. However, when operative procedure is begun the patient reacts to painful stimulus and becomes restless or even

resistant. If the patient is immediately given a few inhalations of gas, or ether, he becomes completely anesthetized and remains under the pentobarbital-sodium anesthesia without further use of the supplementary anesthetic.

The preparation is usually administered in 5 per cent solution or $7\frac{1}{2}$ grains dissolved in 10 c.c. of sterile distilled water which enables one better to control the dosage. The solution should be freshly prepared for each case as it hydrolyzes in aqueous solution, and only perfectly clear solutions should be used. There is no nausea or vomiting, the blood pressure frequently falls slightly at first, only to return to the previous level or above in a short time. The respiration becomes lessened in amplitude, the rate slowed, no cyanosis has been noted. Any marked depression of respiration or excessive fall in blood pressure calls for an immediate cessation of the injection. In our series of cases there has been no severe interference with normal function noted. It is well to keep in mind, however, that any drug capable of producing hypnosis and anesthesia is dangerous and must be employed with care and complete knowledge of its action.

CONTRA-INDICATIONS.

As in general anesthesia, the aged, high or low blood pressure, arterio-sclerosis and unstable cardio-vascular systems, pulmonary involvement or edema about the neck or throat are contra-indications. The chief dangers are broncho-pneumonia, and post-operative pulmonary edema. These are noted only after excessive doses. We have not found shock to be a contra-indication provided the chest was not involved by injury. Known cardiac cases have responded satisfactorily. Pentobarbital-sodium should not be given after large doses of morphia. It is not considered advisable to administer the drug except in smaller doses in the presence of known kidney impairment. Pentobarbital-sodium is twice as toxic as sodium amytal, and its action

much shorter.² I have administered it as a basal hypnotic in cases ranging in age from four to sixty-seven years, both sex, white and colored, orally, rectally, intramuscularly and intravenously, emaciated and obese, in a very wide variety of operative conditions, varying from simple incision and suturing to most extensive laparatomies, in patients in whom the immediate operative risk was great, in cases where ether, gas and spinal anesthesia was used. With the exception of spinal anesthesia, nitrous oxide with oxygen and the addition of ether when necessary were the supplementary anesthetics used. In many instances patients object to or fear an anesthetic more than an operation. This condition can be obviated by injecting the case in his room, where he goes to sleep and awakens, with no recollection or knowledge of having been out of his bed. It is remarkable how pleasantly surprised many patients are on awakening when they fully realize that they have no recollection of operation, operating room or any thing attendant thereupon.

Pentobarbital-sodium has been found useful and dependable in cases of tetanus, eclampsia, delirium, alcoholic and otherwise, and convulsive seizures arising from toxic conditions of the intestinal canal or kidneys. Convulsions are quickly controlled and subsequent medication is not interfered with to any great extent.

OBSTETRICS.

Recent reports have shown the drug to be very satisfactory in the delivery room, being administered orally in 3 grain doses. Where delivery is prolonged this may be repeated, it has been used in solution 5 c.c. containing $3\frac{3}{4}$ grains intramuscular, at the end of the first stage with or without morphine or H.M.C. No. 1. This dose may be repeated if necessary. Consciousness usually returns in four to six hours, there is no irritation from the injection, after pains are conspicuously absent, and there is very little restlessness. There is no

effect on uterine contractions, nor has ill effect on the baby been noted. My personal experience in the obstetrical use of this barbituric preparation has been limited.

CASE REVIEWS.

The following cases are reported as typical ones in which the use of pentobarbital sodium is demonstrated:

A. C., white, female, aged 35 years. Admitted for tonsilectomy; highly nervous, dreaded anesthetic and was considered unfit for local anesthesia. Blood pressure 115/60. Heart, lungs and urine negative. Patient was given 4 grains pentobarbital-sodium intravenously in room, hypnosis was complete in 3 minutes. Patient removed to operating room, tonsilectomy performed with the addition of 2 ounces of ether. Recovered consciousness in two and one-half hours, but slept if undisturbed. There was no nausea or vomiting and patient was very much pleased with result; recovery uneventful.

A. P., white, male, aged 62 years. Admitted for herniotomy, rt. inguinal. Heart, lungs and urine normal. The patient dreaded taking ether. Six grains of pentobarbital-sodium was given intravenously while in bed. Profound hypnosis in 3 minutes. The operative field was injected with one-half per cent novocain. Herniotomy completed; a few inhalations of nitrous oxide and oxygen was given at finish as patient was showing return of sensation. Slept three and one-half hours but could be aroused. No nausea or vomiting and patient had no recollection of having been out of room; recovery uneventful.

Mrs. F. W., white, female, aged 30 years. Heart and lungs normal, urine was not examined. Admitting diagnosis: incomplete abortion with severe hemorrhages. Patient's pulse was 130, she showed marked effect from hemorrhages, almost exsanguinated. Blood pressure 100/50, she was placed on table and 800 c.c. of a glucose solution given intravenously. Five grains of pentobarbital-sodium was introduced with this solution. Hypnosis was immediate and complete. The uterus was dilated, a partially detached placenta removed, and uterine cavity was swabbed out. No other anesthetic was used. Anesthesia was perfect, there was no sequellae, and patient was put to bed within 35 minutes after admission in much better condition than when admitted. Blood pressure 110/60, slept 2

hours and 15 minutes, but could be aroused. No nausea or vomiting; recovery uneventful.

Miss B. S., white, female, aged 22 years. Admitted for appendectomy. Heart, lungs and urine negative. Blood pressure 120/70. Five grains of pentobarbital-sodium was given intravenously in room. Hypnosis was immediate and complete. Appendectomy completed with the addition of 2 ounces of ether in order to secure more complete relaxation of the rectus muscles. There was no nausea or vomiting. Patient slept for 3 hours and on awakening had no recollection of having been out of room; recovery uneventful.

Mrs. J. H., female, white, aged 36 years. Admitted for pan-hysterectomy, large uterine fibroid. She was given one and one-half grains in capsule the night before and three grains pentobarbital-sodium in capsule one hour preceding operation, together with 1/6 grain morphine and 1/200 of atropine, also 3/4 grain ephedrin. Patient came to operating room somnolent but responsive. Spinal anesthesia was used, no marked interference with blood pressure or respiration was noted. A pan-hysterectomy, bilateral oophorectomy and appendectomy was completed without additional anesthesia. There was no nausea or vomiting, and no sequellae; recovery normal and rapid.

Case J. R., white, male, aged 32 years. Admitted for incised wound of left forearm, severing skin, muscles and tendons. This patient was very much under the influence of liquor, he was given 7½ grains of pentobarbital-sodium intravenously which produced complete hypnosis in 3½ minutes. Suturing of muscles, sheaths, tendons and skin completed without any other anesthetic. Patient slept 4 hours, was nauseated and vomited on awakening, which was evidently due to a large quantity of food mixed with whiskey. There was no further vomiting; recovery uneventful.

M. W., colored, female, aged 32 years. Admitted for multiple deep incised wounds of face, arms, back and shoulders, knife wounds severing muscles and tendons. Had lost lots of blood. She was given 7½ grains of the drug intravenously, with 800 c.c. of saline solution containing adrenalin. Hypnosis was complete in 2½ minutes. Bleeding vessels which had previously been clamped, were ligated. Suturing of muscles, sheaths, tendons and skin completed after one hour and 25 minutes work. No other anesthetic used. Patient left table in excellent condition. No nausea or vomiting. No sequellae; recovery normal.

J. K., white, male, aged 4 years. Admitted for circumcision and tonsilectomy. Three grains of pen-

tobarbital-sodium was given per rectum one hour and 30 minutes preceeding operation. Patient was asleep when brought to operating room. Tonsilectomy, adenectomy and circumcision completed with the additional use of 2½ ounces of ether. No nausea or vomiting; recovery uneventful.

A. G., white, male, aged 65 years. Admitted for cholecystectomy, heart hypertrophied. Lungs normal, urine negative. Blood pressure 130/80. He was given 1½ grains of pentobarbital-sodium in capsule night before, and 3 grains with 1/6 morphine and 1/200 atropine, one hour preceeding operation. Patient entered operating room somnolent but responsive to questions. Spinal anesthesia was used. There was a fall in blood pressure to 118/60, but no respiratory depression. Operation was completed and no other anesthetic used. No nausea or vomiting. Patient returned to room in excellent condition. No sequellae; recovery uneventful.

J. A., white, male, aged 69 years. Diagnosis sarcoma of right testicle with large hydrocele. Heart hypertrophied; lungs negative; urine negative. Blood pressure 135/90. He was given 1½ grains of pentobarbital-sodium the night before and 3 grams one hour preceding operation, with 1/6 grain of morphine and 1/200 of atropine. Patient came to operating room somnolent but responsive. Sacral block was used to complete anesthesia. No other anesthetic was used. Patient slept through the operation which consisted of the removal of the testicle and hydrocele sac. He could be aroused when spoken to. No nausea or vomiting, no marked depression of blood pressure or respiration, returned to room in good condition and slept for 2 hours; recovery uneventful.

SUMMARY.

Ten cases, selected as to sex, age, physical condition and operative procedure contemplated give a fair idea of the value and effectiveness of pentobarbital-sodium as a basal hypnotic when administered with an understanding as to drug action, type of patient and result desired.

REFERENCES.

1. Lundy, J. S. and Osterberg, A. E.: *Proc. Staff Meetings Mayo Clinic*, 4:386, 1929.
2. Lundy, J. S.: *Anesth. and Analg.*, 9:210, 1930.

THE STANDARD TREATMENT OF MALARIA.*

(A PRELIMINARY REPORT).

JAS. M. ADAMS, M. D.,

BATON ROUGE, LA.

An eminent physician has said "The sum total of medical knowledge represents the accumulation of reports on their work by worthwhile observers. None of these individually represent the last word, and from few of them can a definite conclusion be drawn, but put together they mean everything in the advancement of science." This statement has encouraged me to present the records in a series of 1,562 cases of malaria.

Despite the fact that 1930 marked the 300th anniversary of the first application of quinine in the treatment of malaria, the 120th anniversary of the extraction of the quinine alkaloid from cinchona bark and the 50th anniversary of the discovery of the parasites of malaria, we still find considerable diversity in dosage and method of administration of quinine in malaria.

The disease has been recognized for many hundreds of years. Hippocrates described the tertian, quartan and quotidian and differentiated them from other fevers. He believed them to be caused by black bile and this theory was accepted until the Renaissance, giving way to the theory of miasms first proposed by Lancisi (1717). He observed that tertian paroxysms often terminated in 5, 7 or 9 revolutions, but Potter, 2,200 years later, disagreed and stated that paroxysms ending spontaneously in the fall, recur in the spring. Lancisi in 1718 suggested the possibility of the disease being caused by the introduction into the body of poisons by the bites of mosquitos and other smaller insects. In 1875 Binz offered the hypothesis that a living organism was the cause of malaria

*Read before the Louisiana State Medical Society, New Orleans, April 14-16, 1931.

and 5 years later Laveran demonstrated the plasmodium. Ross, in 1898, proved the transmission of the disease by certain mosquitos and in 1911 Bass and Johns cultured the organism outside the body.

In 1620 the Countess of Chinchon, wife of the viceroy of Peru, was cured of malaria with cinchona bark. deCanizares, a layman, knew of its use by the natives prior to that time and recommended that it be tried.

The introduction of the drug into Europe produced a profound change in the course of medical thought. For 14 centuries the science of medicine had been based on the Galenic theories. The brilliant success with cinchona of Sydenham in England and Torti in Italy, while strongly decried by the disciples of Galen who saw the overthrow of the foundation stone of medical practice up to that time, marked the beginning of the end of Galenism.

Torti really solved the question of the treatment of malaria both as to the mode of action and the method of administration of cinchona. He stated that cinchona was an antidote to the cause of the fever without causing any evacuation of an injurious material. He gave 2 drams of the bark (equivalent to 5 grains of quinine alkaloids to prevent a paroxysm either at the beginning or toward the end of the previous one. Then after one or two days he gave 1 dram for 2 days in succession, followed by $\frac{1}{2}$ dram early every morning for eight days. Fifteen days later he gave 20 grains every morning for 6 days and repeated this last course several times if necessary and said "6 scruples taken on 6 succeeding days are by no means equal in efficiency to 2 drams taken at once, although the weight is the same. Whereas a wood fire can be easily extinguished with a pound of water if it is poured over the fire at once, two pounds will not be enough if it be dropped on the fire drop by drop and at long intervals." With Sydenham he rejected all adjuvants

and used the powdered bark alone in wine. He proposed the name "Mal Aria" for intermittent fever, but it was not generally used for many years.

In 1820 Pelletier and Caventou extracted the alkaloid quinine from cinchona bark, materially simplifying the administration of the drug. Potter, 6 years later recommended 2 or 3 grains every 2 hours for 6 or 8 doses (12 to 24 grains), continued for 7 or 8 days.

Four years later Dewees said that quinine had already almost superseded cinchona bark. He recommended 1 grain every hour during intermission of the quotidian up to 1 hour before the expected paroxysm, and in tertian or quartan 1 grain every 2 hours. He said there was little advantage in excessive doses and especially objected to large doses just before the recurring fit. To prevent recurrence he advised a few doses on the 7th, 9th and 13th days with hygienic advice and removal from the malarious locality.

Sorbenhiem in 1840 said "Quinine has gained a permanent reputation as well as the name of a specific remedy in this disease (intermittent fever) and, immaterial how many surrogates have been recommended in its place owing to the high price, from alkornoko, mahogany wood, common yellow wall lichen, barks of chestnut and willows down to spider-web and the sawdust of autenreith, none have been able to replace it." He recommended 12 to 16 grains in tertian and quotidian, 20 grains in quartan and in the pernicious forms 2 to 6 grains and even up to a scruple to a dram and a half every 2 hours. He advised that the drug be given for some time after the fever had disappeared.

In 1852 Dr. Geo. B. Wood recommended 12 to 24 grains of quinine sulphate during the intermission of intermittent fever. He stated "It is seldom, however, that less than 12 grains in each intermission can be re-

lied on. I have repeatedly known cases treated for a considerable time with smaller doses without effect to yield immediately to the medicine in large quantities." He said further, that if the treatment does not prevent the second paroxysm, that the dosage should be increased "to any amount which may be necessary to produce its peculiar effect on the brain, whether that amount be the larger quantity above mentioned or much more." He said that other physicians of his day prescribed 30 to 60 grains or even 100 grains in 24 hours. He says "I do not remember ever to have found more than 24 grains, in that period of time, necessary." He recommended that it be given in small, frequently repeated doses throughout the intermission, and that it be continued "as long as the least vestige of a paroxysm remains. Should the physician suppose that he has conquered the disease when he has reduced the violent ague and fever to a few disagreeable sensations at the regular period, and under this supposition omit the medicine, he will frequently be disappointed to find the paroxysms resuming their original violence." He further says in reference to other drugs used for the cure of malaria "Few of them, however, have stood the test of trial and not one has yet satisfied the profession generally of its claims to supersede the sulphate of quinia."

About the same time (1857) Dr. Dunglinson advocated 5 grains one hour before the expected paroxysm, repeated in one-half to three-quarters of an hour. He said, however, that much larger doses had been given—as much as 90 grains and more in the 24 hours, "But" he stated, "it is questionable whether such large doses can be necessary." He reported that an Alabama physician had administered 30 grains of quinine sulphate in solution every hour for 17 successive doses; that a western physician "emptied into the stomach of a patient laboring under bilious remittent, an ounce bottle in one night" and that Dr. B. Rush Mitchel "in a case of congestive fever gave

30 grains every half hour until 240 grains were taken in about 4 hours; and", he naively continues, "the patient recovered."

Dr. H. C. Wood, stated in 1877 that the use of quinine in malaria was purely empirical but that its action in malaria was unmistakable. He recommended in pernicious fever at least 35 grains of quinine during the first day of intermission and 25 grains during the second and states that "less than 50 grains of the drug sometimes appears to do but little good."

By the beginning of the present century the cause of malaria and the mode of action of quinine as a protoplasmic poison had been demonstrated and the treatment of the disease placed upon a rational basis. Prior to this time the object of treatment had been to reduce a given attack of fever, but now the aim was to rid the system of the parasites. Sir Ronald Ross about this time advised not to exceed 30 grains daily to be continued for one week after the last paroxysm, then 15 grains for two weeks when the dose was further reduced and continued for at least three months. He advised that the dose in the acute stage should be given one hour before the expected paroxysm, but in the remittent type to give it in three doses throughout the day. For the first time it was advised not to wait for an intermission but to give quinine regardless of the temperature.

Osler recommended 10 to 30 grains daily in divided doses for three days and in smaller doses for 2 or 3 weeks. In the aestivo-autumnal type, he said that large doses might be necessary.

Dr. John B. Elliott, Sr., taught his pupils to give 10 grains 4 hours and 10 grains 2 hours before the chill time for several days and to repeat on the seventh, fourteenth, twenty-first and twenty-eighth days.

In 1919 Dr. Bass published a report of an investigation of the treatment of 25,000 cases of malaria infected persons and ad-

vised the procedure which was recommended during that year by the National Malaria Committee as the "Standard Treatment for Malaria." It consists of the administration of 10 grains of quinine sulphate three times a day for at least three days, or until the clinical symptoms have subsided. Then 10 grains each night for a minimum period of 8 weeks but longer if necessary.

Dr. Bethea in his recent book on Clinical Medicine recommends the "standard" treatment but suggests that the dosage might be regulated by the amount of blood in a patient's body so that a standard concentration of the drug in the patient's blood is effected in each case. This may be calculated by the weight. Using the 30 and 10 grain doses as a standard for a person weighing 150 pounds, the dosage would be 1 grain daily for each 5 pounds of body weight for the intensive course and 1 grain for each 15 pounds for the subsequent treatment. Binz (1875) had found that a solution of quinine not lower than 1 to 4,000 was necessary to cause cessation of amoeboid movements of fresh water amoeba. On this hypothesis, Bacelli (1890) found that 1 gram of quinine injected intravenously in a patient with malaria weighing 130 pounds, producing a concentration in the blood of 1 to 5,000, was necessary to control a paroxysm, and that it must be administered at least three hours before the paroxysm. Lower concentrations failed to produce the desired effect.

Dr. Bass in a paper presented at the 1930 meeting of the A. M. A. says "Quinine is so specific in malaria that I believe it can be relieved of clinical symptoms and finally cured of the infection with sufficient doses for a sufficient length of time, with the possible exception of severe cases in which too great damage has already occurred. Such cases are extremely rare. They are so rare as to permit an authority with the large experience of Major J. A. Sinton to say only recently that among more than

1,500 patients suffering from benign tertian malaria, he had not found a single case of quinine resistance, although many of them arrived with histories of having this condition; nor did he see relapses occur during the course of quinine treatment."

Medical men are averse to using routine treatments, and rightly so. The present trend is toward the treatment of the patient rather than the disease. But malaria is in a class almost alone. It is the classic example of a disease having a specific remedy and for this reason there must be a best method of administering the drug. There may be minor variations to suit special cases without a departure from the standard procedure. As stated by Dr. Bethea "After the plan has become firmly fixed in the minds of medical men, it may be permissible, or at times even desirable to individualize the treatment.

In an industry at Baton Rouge employing approximately 5,000 men between the ages of 18 and 70 years, including both white and colored, it was found that 17 per cent of all illness was due to malaria. Many men had two or more attacks every summer. Although the medical department for this plant does not treat disabling illness among the employees, it was felt that the amount of time lost from malaria could be reduced by treating these cases. Early in 1925 the record of each employee covering a period of two years was checked and we found that 709 had had one or more attacks of malaria during this period. A single examination of the blood of each of these men was made, and in 79 (11 per cent) plasmodia were found. Repeated examinations would doubtless have brought to light other cases. None of the 79 had any symptoms and were treated without losing time. Thereafter the blood of each man with symptoms of malaria, or that was treated for malaria other than by us, or in whom we had reason to suspect the disease, and as a routine in

certain cases such as heat cramps and "sprained backs," was examined. Treatment was given in all cases showing plasmodia except those already under treatment of a physician. In these latter cases the physician was given a report on the result of the examination. The standard quinine treatment was used routinely. In some cases with idiosyncrasy for quinine, in some who objected to the quinine effects and in those we suspected were not taking the quinine as directed, sodium cacodylate was given in 3 to 5 grain doses, hypodermically, three times a week for four weeks. In a few cases apparently not controlled by quinine for several days, both quinine and the cacodylate were used. In a few chronic cases during the past year the standard treatment was followed by plasmochin with quinine. In a few cases the treatment was varied slightly or additional treatment was given to meet specific conditions. In from 10 to 30 days after the treatment was completed another blood examination was made.

In the past 6 years we have found the plasmodia in 1,562 cases. Of these there were:

	Number of cases	Per cent of type noted
Tertian	982	86
Quartan	151	13
Aestivo-autumnal	6	
Tertian and quartan.....	2	
Type not noted.....	421	

	Number of cases	Per-cent of treated cases
Treatment given was:		
Standard quinine	1278	90
Sodium cacodylate	65	5
Quinine and sodium cacodylate	70	5
Treated by other physicians.....	133	
No treatment or did not follow instructions	16	

Results of blood examination after treatment:

	Number of cases	Per-cent of those examined
Negative	1257	92
Positive	111	8
Not examined	194	

During the first three years of the series, the treatment that had been given to the cases that were found positive after treatment, was not noted. In 802 cases in which this point was noted there were:

	Number of cases	Blood positive after treatment	Per cent
Standard quinine	696	68	10
Sodium cacodylate	67	5	7
Quinine and sodium cacodylate	39	4	10

56 cases had been treated by us the previous year, 7 had the treatment for the two preceding years and one case was treated for each of the three preceding years. These might also be classed with the failures.

In 77 cases taking the standard treatment it was necessary to give the 30 grain dose daily for a longer period than 3 or 4 days in order to control the symptoms.

The method of administration was to give the patient 99 grains in the tertian cases and 120 grains in the quartan to be taken 10 grains three times a day. The patient was instructed to return when the medicine was all taken and was then given a sufficient quantity to complete the treatment of 10 grains every night for 8 weeks.

The cases treated as above outlined lost an average of 6 days per case while during the same period all cases of malaria in the group of employees averaged 11.5 days per case—almost double the rate for our series. In addition to those losing time, 543 cases were treated without the loss of time, further reducing the time lost in our series to 3.5 days per case—less than one third of the plant rate. Immediately following the inauguration of our plan, the plant malaria rate fell steadily. The rate per 1,000 employees annually fell from 110.4 in 1923 and 97.2 in 1924, the two preceding years, to 82.8 in 1928. In 1929 there was a sharp rise which was maintained in 1930. This increase in malaria was general in East Baton Rouge Parish and through-

out the South. The days lost from malaria also showed a steady decline from 1.31 days per employee per year in 1924 to .93 days in 1928. This represented a saving of 1900 days in 1928 over 1924 for our employees. There was no special anti-malaria campaign carried on in our parish during this period. In fact there was such a campaign two years before our plan was put into effect.

The 10 per cent failures in our treatments may be accounted for by reasons other than the inefficacy of the quinine. 53 per cent of the malaria cases at the plant were negroes and it is probable that many of them failed to complete the treatment. 27 per cent in our series lived in unscreened houses and reinfection doubtless played a part in the relapses.

The disadvantages of the standard treatment are that many people object to quinine effect and are prone to discontinue the treatment before it is completed. There are also some persons with a marked idiosyncrasy for quinine.

The advantages are its efficiency—90 per cent of apparent cures in our series; its low cost; its ease of administration and simplicity of dosage; and its safety.

REFERENCES.

- Potter and Calhoun: *Gregory's Practice of Medicine*, American Edition, Philadelphia, Tower and Hogan, 1826.
- Dewees, W. P.: *Practice of Physic*, Philadelphia, Cary and Lea, 1830.
- Wood, Geo. B.: *Practice of Medicine*, Vol. 3, 3d edition, Philadelphia, Lippincott, Grambo and Co., 1852.
- Dunglison, Robley: *Therapeutics and Materia Medica*, Vol. 1., 4th edition, Philadelphia, Blanchard and Lea, 1857.
- Wood, H. C.: *Treatise on Therapeutics*, 2nd edition, Philadelphia, J. B. Lippincott and Co., 1877.
- Murray, H. Montague: *Quain's Dictionary of Medicine*, 3d edition, New York, D. Appleton and Co., 1902.
- Garrison, Fielding H.: *History of Medicine*, 3d edition, Philadelphia, W. B. Saunders and Co., 1924.
- Wilson, J. C.: *Modern Clinical Medicine, Infectious Diseases*, New York, D. Appleton and Co., 1910.
- Osler, Wm.: *The Principles and Practice of Medicine*, 6th edition, New York, D. Appleton and Co., 1906.
- Bethea, O. W.: *Clinical Medicine*, Philadelphia, W. B. Saunders and Co., 1928.
- Bass, C. C.: *Studies on malaria control*, J. A. M. A., 72:1218-1219, 1919.
- Bass, C. C.: *The treatment of malaria*, J. A. M. A., 95:988-992, 1930.

DISCUSSION.

Dr. O. W. Bethea (New Orleans): I once heard an old preacher complain that he had a great many parishioners who wanted to contribute but they had empty pockets. He also had a great many with full pockets but they didn't have the desire to contribute. What he wanted was parishioners who had both ability and willingness at the same time.

We have in medicine a great many physicians who have the medical material and won't use it, and we have a great many who would contribute to science but they haven't the where-withal with which to work. My very good friend, Dr. Adams, has the opportunity and with his accustomed industry and thoroughness has made a distinct contribution to the sum total of medical knowledge.

There is just one particular feature about his work that I think we could discuss with some interest, and that is these were house treated cases, as I understand it, and therefore they were not under the immediate and direct control of the physician and trained assistant.

In my service at the Charity Hospital I have used the Standard Treatment exclusively since it was first developed. I have had only one case reported to me as quinine-fast and we had the trained nurse on the service administer the quinine in person. This was done by making the patient open his mouth, protrude his tongue and then the nurse placed the quinine well back, handed him a drink of water, watched him while he drank it and then with the tongue depressor examined the inside of his mouth well, to see that the capsules had actually gone down. This patient was clinically well in forty-eight hours.

Most of you will remember the classical experiment of Ross, who gathered up approximately two thousand quinine-fast cases during the World War, put them in a base hospital and had the medical officers to administer the quinine personally and see that it was actually swallowed. All of the patients but one were well in two or three days. It took them a few days longer to catch the other fellow.

Soon after the Standard Treatment was put into use Tulane University invited the physicians in New Orleans to report any cases that were not promptly relieved by this plan of medication. The first report came in from one of our local hospitals and was investigated by one of the teachers in the medical department. He looked over the

patient's bedside notes and said that he did not see any record of quinine having been administered. The attending physician said that he had instructed the interne and the interne said that he had instructed the nurse and the nurse said that she had received no such order. At least this is the story as I remember it.

In investigating the next case reported, the order was found duly entered, the nurse's notes showed the quinine as having been administered, but a search of the patient's bed disclosed all the capsules intact.

If these patients had been treated under Dr. Adam's immediate supervision and control and the quinine had been taken as ordered, I believe that instead of something like ten per cent of failures this group would have been close to zero.

Dr. C. C. Bass (New Orleans): Unfortunately, quinine is not as good a remedy for malaria as we would like to have. I do hope we will some day have a better remedy. Up to the present time I believe we can say without any reservation whatever that nothing even approaches quinine in its value for the control of the clinical symptoms of malaria. It is so perfect a remedy for the control of the clinical symptoms that, as Dr. Adams stated in his paper, people with rather large experience have been unable to find even a single instance in which the clinical symptoms are not controlled. Several years ago I tried to find some of these so-called quinine-fast cases and was not able to find any that stood the test of thorough investigation. There may be such cases, I suppose there are. If so they are hard to find.

With regard to the cure of the infection, quinine is a less satisfactory remedy than it is for the control of the clinical symptoms. If there is variation in the effect of quinine on different individuals in the control of clinical symptoms, there is still very much greater variation in the cure of the infection. It is not unusual to observe cases of malaria getting well and rid of their infection, following only a few doses of quinine or a few days of treatment with quinine. We observe other cases, perhaps occurring in the same household, in all probability infected from the same source and with the same strain of parasites, where even six or eight weeks of continuous quinine treatment fails to cure the infection and prevent relapse.

It isn't a difference in the amount of quinine because we give the same amount. It isn't a difference in the type of parasite because the patients may be infected, in some instances, from

the same source. The difference lies in the effect of quinine on malaria in different individuals. This is probably due to a difference in the disposal or neutralization of quinine in the body of different individuals.

We have no method, at the present time, of recognizing in advance, those individuals who require a long period of treatment and those who will be cured in a shorter period. For that reason we have to select a long period of treatment, unnecessarily long in many instances, such as the standard treatment is. Whenever we give a patient eight weeks of quinine treatment when he only requires one week, we certainly are punishing him with six or seven weeks of unnecessary treatment. If we had any way of picking out the individual who required only one week and the other who would require six, and the other who would require eight or more, we would treat them accordingly. We certainly do not have any way now. Neither do we have any way of determining when a patient is cured. We can treat patients for a week or two and examine them, but we are unable by any method of examination we have to determine that the infection is cured. A negative finding means nothing in this regard. Therefore, we have to adopt, under existing circumstances, some such method of treatment as this standard treatment which gives a high percentage of cures. Even eight weeks treatment doesn't give cures in 100 per cent of cases. If we lengthened it still more to perhaps three months or more, then we probably would cure the infection in 100 per cent of cases. But many patients would be subjected to unnecessarily long treatment.

I do believe that the eight weeks period of treatment is a very satisfactory one and that the results are good enough for most purposes. We must hope that sooner or later we will have either a better remedy than quinine or some method by which we can ascertain when a patient is cured or how long it will take to cure them. At the present time we can only guess, and the best thing is to treat them all a sufficient length of time to cure a large percentage.

Dr. A. A. Herold (Shreveport, La.): I had an amusing incident a few years ago like the one Dr. Bethea referred to. I had a lady with an acute attack of malaria, and I prescribed two dozen capsules of quinine to be taken two every four hours for twenty-four hours. I found on my return that she had more fever than before, and a chill. I counted the capsules and found only four were gone. So then I cautioned her about it.

The following day the same thing happened. The necessary number of capsules were gone, but

as I was leaving the house the maid told me to look behind the bed. The capsules were on the floor. I found her husband and he had to get a nurse who would see that the capsules were properly taken, with good result.

What I arose to say especially as Dr. Adams didn't refer to it, is that in these cases of so-called quinine-fast malarías or where you do not get the result, as in this case, it has been my practice (and I have never seen any ill effects from it) to give two doses of quinine intravenously daily until the malaria is controlled. Then I leave capsules with the patient with instructions for taking them, and if he doesn't want to follow those instructions that is his own responsibility.

I know Dr. Bass has told us that the capsule by mouth is as efficient as any other way, but for some reason either the patient doesn't take them or don't absorb them at times, and I have never seen the quinine administered intravenously have any ill effects.

I would like to have Dr. Adams discuss that in closing.

Dr. S. J. Couvillon (Moreauville, La.): I don't know whether I should rise to talk following such experts as Dr. Bass, Dr. Bethea, Dr. Adams and Dr. Herold. I'm from a section where there exists a good deal of malaria. The paper of Dr. Adams' is of special interest to me and I'm sure also to my confreres who are here from the country districts.

Of course, the first thing to do in the treatment of malaria is to diagnose the case correctly. Cases with chills and fevers coming on periodically and otherwise, are not always of a malarial origin. The chronic and even the sub-acute forms of the disease come to us at all times of the year with such manifestations as rheumatisms, neuralgias, with and in the absence of febrile phenomena. We also have cases coming to us with blood in the urine, hemoglobinuria, diarrhoeas, with and without chills and fever, conditions which are actually malarial infection and we have to adopt the standard treatment for the cure of these various ailments.

I have found nothing better than quinine sulphate by the mouth for the treatment of acute and chronic cases of malarial fevers and while Dr. Bass mentioned that he hoped we would find something better in the future, I do not believe we will ever, because there are no substitutes at our command, never had any, to exceed the quinine treatment of that disease in our country.

In both the acute and chronic cases I follow the Bass system. In acute cases I give four

grains of the sulphate for three days and nights, preceded by a strong purgative. The chronic cases are treated likewise for three days and nights, but is extended with ten grains of quinine every night for thirty, sixty to as long as ninety nights uninterruptedly, depending on the severity of the infection.

There has been very little mention if at all of the preventive treatment of malaria-measures in mind which is of a paramount importance. Where I live, which unfortunately has been the overflowed section of Avoyelles parish, where the mosquito is plentiful, our people are very much impoverished due to the flood ravages and other reverses and as a consequence have not been able to screen their homes properly. Due to education and economic principles everyone is rapidly and thoroughly screening their homes and I'm proud to say that the malarial pest is largely minimized. In passing, I wish to say that the man who invented the screens certainly has a place in Heaven, because it's the best means at our command to prevent the infection. It serves not only to prevent the disease, but the relapses. Following the long quinine treatment in the chronic cases, the anaemia is corrected by the uses of the elixir of iron-quinine-strychnine and those poor patients usually get perfectly well. I want to thank you for allowing me this time to discuss so timely a paper.

Dr. R. McG. Carruth (New Roads, La.): I had not intended to say anything on this subject. This society has heard me quite a number of times in the last twenty or twenty-five years make brief talks on the subject of malaria and its treatment with quinine.

I come from a lowland country, like my friend, Dr. Couvillon, which was so infected with malaria when I went there in 1880 (that was before most of you here were practicing medicine) it seemed it had crowded out everything else, if I may use such an expression.

I am not going to tell you so much about the quinine-fast cases, but I am going to tell you a little bit about what I call quinine idiosyncrasies. We had so many families, especially in a few Creole neighborhoods, who could not take a single (they told me) grain of quinine. I know that in from thirty minutes to two hours, possibly a little longer, five grains would bring on copious hemoglobinuria, and I have seen it tried and tried again. I thought possibly there was some mistake about it.

I was once absent from my home when another physician, a recent graduate, was called in to see a case in my clientele and he insisted on giving the patient five grains of quinine. They tele-

graphed me, they had no telephones in those days, to come home from New Orleans to treat that case of hemoglobinuria because I had previously steered her successfully through two or three attacks of this disease.

And I want to say it was very fatal at that time. We had no screened houses as it was long before the days of modern sanitation. We had malaria all the time. No matter what else the patient had, we always had to give quinine.

As to this idiosyncrasy for quinine, I want to tell you that the first time I ever heard of green quinine and red quinine and yellow quinine, and white quinine, it was when I went to that parish. It was in the books, but I had never paid any attention to it. I had to ask my friend, Dr. Ladmirault, possibly Dr. Bass may remember him or has heard of him, a quite aged French physician who stood very high with us and was quite a learned and scientific man but, of course, a little behind the times, about these colored quinines. He used very much in these cases the green quinine—the ferrocyanide. The yellow is the hydrobromide, the red the tannate, and the white, of course, the sulphate and the bisulphate. A good many of the cases that can't take sulphate quinine can take the hydrobromide or ferrocyanide. In all those cases I became most successful in using the ferrocyanide.

I saw an old gentleman recently, some eighty-odd years of age, and when I suggested a little quinine simply as a tonic, not for malaria, his wife said, raising her hands in horror, "Doctor, don't give him quinine."

"You mean the white quinine?" I replied.

She said, "Oh, you will have to give him the green quinine." And of course I gave the green quinine.

I found ferrocyanide just as effectual, but in larger doses. So far as my general treatment for malaria is concerned, I have followed the Bass treatment ever since I first heard of the Bass treatment which was quite a number of years ago. At first, after breaking up the paroxysm, we gave it for two weeks, three weeks or four weeks, and now, for some years, we give it for six weeks and eight weeks. I have never given the enormous doses of quinine that were usually given at that time in my parish when I first located there.

When a patient had been in the habit of taking thirty and forty grains I succeeded with fifteen, eighteen or twenty grains. Those cases were generally very bilious. Some of them were extremely sallow with a bad form of anemia. They all needed some form of mercury, but I was

always cautious in using it. A good many people had been salivated from large doses of calomel empirically given. A great many said, "Don't give me calomel. It will salivate me." I gave it in small but repeated doses and followed with a brisk saline, then combining something with the quinine to keep up the purgative effect I got along with nearly half or not more than two-thirds of the amount that had usually been required.

Dr. James M. Adams (closing): I want to thank the gentlemen for the very generous discussion they have given my paper, and I want especially to take this opportunity to thank Dr. Bass and Dr. Bethea publicly for the encouragement they have given me in carrying out this work at Baton Rouge.

I was glad to hear Dr. Bass say that much less than the amount required for the standard treatment was sufficient for a large number of cases because I have been convinced of that in my experience up there. But I felt, after investigation covering 25,000 cases, that the eight weeks' treatment was the average amount required. I am perfectly willing to follow it and insist on all of our patients taking the full eight weeks course.

I believe it was Golgi who was so enthusiastic that he said one dose in certain cases cured the disease. I think it is perfectly possible that one dose of quinine given intravenously would be sufficient to cure some cases, but they are so few and so many cases would remain uncured after that single dose that I don't think it is up to any of us to even try it.

Dr. Herold said something about the intravenous use of quinine. All the cases we are treating up there are the benign tertian types and the quartan types. Only a very few have the tropical forms, and there are no pernicious forms at all. I have never found it necessary to use the intravenous quinine in any of these cases. I think the success we have in the administration of the medicine by mouth is sufficient so that we are not called on to give any intravenous treatment.

In regard to the idiosyncrasy for quinine, we have quite a large number of men, as you all know, people who say they can't take quinine. If you pin them down to it the only reason they can give is the effect it has on the head, the ringing in the head. In those cases we insist on their taking the quinine. But if a man says he has urticaria or edema of the larynx after a small dose of quinine, we take his word for it. The cacodylate of soda is the drug we have selected to use in those cases.

Somebody mentioned the use of screens in the prevention of malaria. That was one of our reasons for starting this work because so many of our cases living in rented houses couldn't put the screen in themselves and the people who owned the houses wouldn't put them in. We felt if we could give them this continued course of treatment we would eliminate a lot of the reinfection that would naturally occur in these houses. By curing at least one carrier in the house we would reduce the chances of reinfection.

One of the reasons we used to hear given quite a good deal for the inefficacy of quinine in some cases of malaria was that the capsules didn't dissolve. I don't believe that is to be considered in these days. We are using a very friable tablet of quinine instead of the capsule in our cases. I don't know that we get any better results than we did when we used the capsule.

HISTORY TAKING.

A. H. LITTLE, M. D.

OXFORD, MISS.

In presenting this subject to you I realize that it is rather an elementary one and one that many of us probably hoped to forget when we were back in the hospitals as internes attempting to keep the case histories of all patients complete and up to date. The information secured by the interne in his case history is not as valuable or as interesting to him probably as the information we obtained in later years in the histories of our private patients. We have learned to spend more time on that part of the history that is more important and go less into detail on the less important phases of the case, never omitting any part however.

There are many outlines and forms used in history taking but no one outline will be found to be entirely satisfactory for every case. If we expect to have a printed form on which we shall simply place a check mark at intervals after having asking a question our history will not be very valuable. Printed forms or outlines are a

great aid in preventing the omission of many important points in a history and make a much more neatly arranged history for filing. Forms should always have ample space for all information that one should care to write into the history in addition to the usual questions and answers.

There are several things upon which the value of a case history depends. The historian himself may not have the patience to go into detailed questioning about various symptoms that might be very valuable in leading up to the diagnosis. The patient must also be given sufficient time to answer the questions asked and to add any further information that he may wish to give. On the other hand the historian may spend too much time on some unimportant detail and overlook some of the more essential parts of the history. The patient may lack the intelligence to give reliable information. False information may be given intentionally by a patient which would render a history valueless. Many times a patient greatly exaggerates his symptoms and may paint a perfect picture of a disease probably because he wants to have that particular disease at the time his history is being taken. In this case a history will quite naturally be of less value and we should mention the fact that we suspect the information to be false or that the symptoms have been exaggerated.

The importance of a carefully taken history are numerous. Valuable information leading to the early diagnosis of disease is obtained by which many lives may be saved by the early institution of treatment. An early diagnosis is often probably not made when an incomplete history is taken. Slight impairment of function of various organs of the body produced by previous illnesses may be more easily found when we are aware that the patient has had those diseases that are likely to leave damaged organs in their wake. We will ask a few

*Read before the Section on Medicine at the Sixty-fourth Annual Session of the Mississippi State Medical Association, Jackson, May 12, 1931.

more questions and look a bit more closely in the physical examination when we know those diseases have been present. The history we take of our patient is not a mere scrap of paper, it is a permanent record that contains facts and something that may be referred to from time to time as we continue to see the patient in subsequent illnesses. The patient is glad to know that his physician keeps a record of him and will frequently ask questions about his previous symptoms that might be embarrassing should we not have the accurate information at our finger tips.

A noted physician stated recently in an address that if taking a history of a patient did nothing more than give a doctor sufficient time to thoroughly inspect his patient and to allow his patient to relax after coming into his office it served a very valuable purpose. It is my opinion that all of us will agree that we gain much more information from a history than the previously mentioned facts. The diagnosis of possibly fifty per cent of our cases is almost made on the completion of the history and before the physical examination is begun. It is not my intention to overemphasize the value of the history and lead you to think that the physical examination is not just as important for in my opinion they are equally valuable.

I will not burden you by the details of a complete history outline but will call your attention to some of the more important facts of a history and attempt to show why these facts are so important. It is hardly necessary to mention the usual identification sheet containing the full name, address, age, race, sex, etc., never overlooking the occupation which in many cases gives some aid in making the diag-

nosis and in outlining the treatment. By the time the identification sheet is complete the patient is probably wondering when he is to be given an opportunity to tell of his troubles and this is probably the best time to allow him to state his complaint in his own words but briefly and accurately. After this the present illness is taken up in detail as to the exact time of onset of symptoms, character of onset and course of disease to present time going into each symptom very carefully and obtaining if possible the cause of various existing conditions. In writing the present illness it is well to include the habits of the patient, his living conditions and even at the present time it seems to be in order to inquire into the amount of alcoholic drinks he consumes daily.

After completing the present illness the past history should be written. Many times the present illness will be connected with some past disease or injury that the individual has probably forgotten. The real cause of the present illness may thus be determined by this information. Inquire of previous illness, especially those of a severe nature and if there were any complications, the character and severity of the complication. Surgical operations and severe injuries should be described as to date, severity, complications and date of complete recovery. History of venereal diseases should be described in detail including duration and type of treatment. Unusual tact is sometimes necessary in obtaining this part of the history from colored patients due to the fact that many of them fail to remember these diseases.

In taking the family history we do not gain specific information but do obtain cer-

tain information of general character that is of value in some cases. Certain diseases as tuberculosis, cancer, diabetes, gout, apoplexy, and some nervous diseases seem to have a tendency to recur in families. It is well to list the ages of the father, mother, brothers, and sisters and state whether living or dead.

The physical examination of the individual is always a part of the complete case history, but because of limited time I will not attempt to discuss that very important part of the history other than to state that if a careful and systematic examination of each and every patient is made after the history is taken we will all make fewer errors in our diagnosis and will reap more enjoyment in the treatment of our patients.

DISCUSSION.

Dr. L. J. Clark (Vicksburg): I enjoyed very much Doctor Little's paper. I am sure that there is nothing I could add. However, I would like to stress several points he brought out that I have found of the utmost importance in taking the history of individuals.

In the conditions that seem to be of a gastro-intestinal nature, it seems to me that it is very important that details should be brought out as to the character and quantity of food eaten, and the time for meals; whether or not they drink or eat between meals; also the rate of eating, particularly certain individuals that have to answer the phone at meal time,—such questions as that should always be answered. Also, the mode of living and social environment should be developed, as well as the amount of exercise they take, and the amount of rest; the patient's mental attitude towards his occupation should be ascertained.

Again, I want to stress, as Doctor Parks of Baltimore says, the orderly occurrence of events. I find this is of the utmost importance in a great many cases.

Lastly, I want to agree with Doctor Walker of Washington that we should endeavor to classify the patients into certain psychological groups. He finds certain groups are inclined to have certain diseases.

Dr. C. M. Speck (New Albany): I enjoyed Doctor Little's paper very much. I don't think there is a subject in medicine that is more important than history taking. In fact, very few of us pay as much attention to the history of cases as we should. In the case of very many diseases diagnosis can almost be made by the history alone. We take for instance duodenal ulcer. Hunger pain coming on two to four hours after eating with intermissions in occurrence is almost diagnostic. Very few of us, as I said, take histories as we should. A great many doctors who are well educated and well trained pay very little attention to history taking and there is not an aid to diagnosis as important as history taking. I thank you.

Dr. Randolph Lyons (New Orleans): Mr. Chairman, ladies and gentlemen: I think it is very refreshing to hear a paper on history taking now and then. We all, I think, appreciate the value and importance of a careful, searching history taking, but the majority of us, I think, are rather apt to neglect it, particularly now-a-days with the multitudinous number of tests we have. We are very apt to skimp the history taking and go on and do something else, when, as a matter of fact, a careful history might afford a diagnosis.

As has been mentioned, there is nothing more important than history. In nervous conditions the history is almost the entire thing. It is very important in many gastro-intestinal conditions. Many gastro-intestinal conditions we come across are functional in character and some of them can almost be diagnosed by the nervous make up of the individual.

I think it is good for all of us to have now and then a paper of this kind to stimulate interest in the good old method of careful history taking.

Dr. Little (closing): I just want to thank the doctors for discussing this paper and especially Doctor Lyons because I remember sitting at the side of the bed in many cases in Tulane and having Doctor Lyons to tell me to do this and do that. Thank you very much, gentlemen.

NEW ORLEANS

Medical and Surgical Journal

Established 1844

Published by the Louisiana State Medical Society under the jurisdiction of the following named Journal Committee:

S. C. Barrow, M. D., *Ex-Officio*
 For one year: W. H. Seemann, M. D.,
 Randolph Lyons, M. D., Secretary
 For two years: John A. Lanford, M. D.
 For three years: S. M. Blackshear, M. D.,
 H. W. Kostmayer, M. D., Chairman.

EDITORIAL STAFF

John H. Musser, M. D. *Editor-in-Chief*
 Leon S. Lippincott, M. D. *Editor*
 Willard R. Wirth, M. D. *Editor*
 H. Theodore Simon, M. D. *Associate Editor*
 D. W. Jones, M. D. *Associate Editor*
 Jacob S. Ullman, M. D. *Associate Editor*

COLLABORATORS—COUNCILORS

<i>For Louisiana</i>	<i>For Mississippi</i>
H. E. Bernadas, M. D.	J. W. Lucas, M. D.
Daniel N. Silverman, M. D.	L. L. Minor, M. D.
C. C. DeGravelles, M. D.	M. W. Robertson, M. D.
J. B. Benton, M. D.	Thomas J. Brown, M. D.
C. P. Gray, M. D.	Willie H. Watson, M. D.
J. H. Slaughter, M. D.	W. G. Gill, M. D.
D. C. Iles, M. D.	Jos. E. Green, M. D.
J. H. Landrum, M. D.	J. W. D. Dicks, M. D.
	D. J. Williams, M. D.

Paul T. Talbot, M. D. *General Manager*
 1430 Tulane Avenue

SUBSCRIPTION TERMS: \$3.00 per year in advance, postage paid, for the United States; \$3.50 per year for all foreign countries belonging to the Postal Union.

News material for publication should be received not later than the twentieth of the month preceding publication. Orders for reprints must be sent in duplicate when returning galley proof.

THE JOURNAL does not hold itself responsible for statements made by any contributor.

Manuscripts should be addressed to the Editor, 1430 Tulane Avenue, New Orleans, La.

THE SOUTHERN MEDICAL.

Last month in an editorial, we called attention to the meeting of the Southern Medical Association, which will be held in New Orleans the third week of this month. We wish to reiterate and repeat what was said in this editorial, and with all earnestness and seriousness, we want to urge the members of the Louisiana State and Mississippi State Medical Societies to come to this fall meeting. Last month we announced that splendid scientific programs are being prepared by the chairman of the different sections. We might add that a

number of clinics, a partial program of which appeared in the last month's issue of this Journal, have also been arranged, and we want to add furthermore that the social features of this meeting will not be neglected. Ample opportunity will be given to the man who is interested in sport to partake of that particular variety in which he may be interested. For the more trivial minded, banquets and other indoor occupations have been provided, and for the ladies a magnificent series of rides, teas, visits through the French Quarter and other features have been fixed up by the splendid Committee on Arrangements of the Ladies' Auxiliary of the Orleans Parish Medical Society.

The scientific features of the Southern Medical Association transcend the social. The man who wishes to keep abreast of the times should attend meetings such as this. The most recent advances of medicine and surgery, and the various specialties will be presented by those who are qualified to know and to speak. Again we urge the members of the two State Medical Societies to whom this Journal goes to join up now with the Southern Medical, if they have not already done so, or if they wish to postpone such action, at least to come as guests to the meeting and see everything that this second largest medical organization in the country can show them in the way of scientific medicine, not to speak of the distinctly less important social entertainments which are not to be stressed but which are always welcome.

PELLEGRA.

For the weeks ending June 20 to July 11, inclusive, a total of four weeks, there was reported in the State of Louisiana 252 cases of pellegra. The week ending July 18 saw the peak of cases reported to the State Board of Health when 325 cases were listed. Undoubtedly, of course, a great many active but mild cases prevalent at this same time were not reported. Surveys

have been made at various times and at various localities indicating that not more than from 10 to 15 per cent of cases of pellegra come to the attention of the doctor. Generally speaking, it is only the aggravated cases that seek medical attention. These data are presented merely with the idea of indicating how widespread and extensive is this disease. It is true, as Sydenstricker has shown, there have been known increases throughout the United States following such periods of economic depression as occurred in 1915, 1921 and 1930. This observation is undoubtedly applicable to the increase of cases in the present depressed year of 1931.

It is interesting to observe that here is a disease which for a period of six weeks led all other reportable diseases in the State of Louisiana, and yet prior to 1907 was not recognized in this country. Osler's great textbook went through the first seven editions with the mere statement that the disease is not observed in the United States. Other contemporaneous textbooks made no mention of it. Yet there can be little doubt that the disease was prevalent in the South before the period of 1907-1908. Wheeler* writes that evidence has accumulated which indicates that the disease, while present in the United States, was not recognized prior to this time, and that the principle argument against the existence of pellegra in North America before it was generally recognized in 1907-1908 lies in the fact that it was not so recognized. Questionnaires sent out to old practicing physicians have shown that they had seen cases of pellegra before 1907, but did not recognize what the disease was. The fact that it was present in this country before this time would indicate that the infectious theory of the disease can not be substantiated by the epidemiologic observation that 1907 marked

the occurrence of an epidemic of a disease which had not reached the shores of the United States before this time.

In conjunction with the high pellegra morbidity rate it is interesting to speculate upon the changes that have occurred in the last two and three decades in the practice of medicine. Aside from changes in methods of practice, one of the interesting developments has been the increase in some disease previously unknown, and the decrease in other diseases which formed the bulk of the physician's practice. Typhoid fever has been relatively accurately controlled, and the contagious diseases of childhood are less prevalent than they used to be, but pellegra steps in to take the place of typhoid fever, and poliomyelitis, in some sections of the country at least, far surmounts all of the reportable contagious diseases in frequency at certain times in the year.

THE PREVALENCE OF ANTERIOR POLIOMYELITIS.

This past summer has witnessed a widespread and extensive epidemic of poliomyelitis in several New England States, the Middle Atlantic, and East-North-Central States. The extent and severity of this epidemic may be adjudged by the fact that the week ending August 29, 1931 in 46 states there was reported 1,319 cases of poliomyelitis, which over-topped all other reportable diseases by a very large majority. The epidemic has been apparently confined to the group of states mentioned above. Certain of the states in these groups seem to be particularly unfortunate in the instance of poliomyelitis. For the first week in September, there was reported in Massachusetts 144 cases, in Connecticut 162, whereas Maine and New Hampshire only had 11 cases. During this same week New York reported 540 cases, while Pennsylvania had but 20. Missouri in this same period reported 107 cases, Ohio 6, and Indiana 4. Minnesota had 50 cases among

*Wheeler, G. A.: A Note on the History of Pellagra in the United States, U. S. Public Health Reports, 46:2223, 1931.

the West and Northcentral States, and Kansas but one.

So far, the South Atlantic States have been fortunately free from poliomyelitis in epidemic proportion. Louisiana and Mississippi have had no more than the usual number of cases that may be expected at this time of the year; in fact, only three cases were reported during the week the largest number of cases occurred in the North. This is most gratifying, for of all the infectious diseases that occasionally break out in epidemics from

time to time, there is none more feared nor more dreaded than poliomyelitis. Knowledge of the way the disease is disseminated, of the cause of the disease, and of any treatment that is effective, is virtually nil. It is only when we have scientific knowledge of a disease that it can be conquered. Perhaps the dreaded poliomyelitis with its high mortality rate and its devastating morbidity will be conquered in the near future, but until more is known as to the cause of the disease this hope will be nothing more than a much to be desired accomplishment.

HOSPITAL STAFF TRANSACTIONS

GEORGE C. HIXON MEMORIAL HOSPITAL.

Staff Meeting September 25, 1931.

Abstract.—An Unusual Case of Appendicitis.—Dr. A. M. McCarthy.

Patient—A white male, unmarried student, aged 16 years, was admitted to the hospital August 12, 1931, 9:30 P. M.

Chief Complaint.—Abdominal pain, diarrhea, nausea, vomiting, and fever.

History of Chief Complaint.—He was awakened from sleep at 4 A. M. by abdominal cramps and a desire to defecate. The bowels moved five times in the next four hours. The stools were fluid and evacuation relieved the cramps. About 5 A. M. he became nauseated, vomited, and continued to vomit throughout the day when he would take anything into stomach. At 10 A. M. he showed evidence of fever, and shortly after noon his temperature, taken by the family physician, was 103° F. At 3 P. M. he had a hard shaking chill, which lasted twenty minutes, and at 4 P. M. his temperature was 104.6° F. The abdominal pains which at first were paroxysmal, gradually became more persistent, and upon admission to the hospital the site of maximum intensity was in the epigastrium. Three weeks previous he had had an attack of indigestion and several loose stools.

Physical Examination on Admission: The patient had morphine and antipyretic treatment by the family physician and appeared fairly comfortable. He was well developed and well nourished. Temperature was 99.8° F., pulse 112, respiration 22, blood pressure 118/70. The abdomen was flat in appearance. There was generalized tenderness, slightly accentuated in the epigastrium and right

hypochondrium and flank. Pressure over McBurney's point elicited pain, but not as intense as did pressure over the upper abdomen. Both recti muscles were more spastic than normal, but there was no localized rigidity. Physical examination was otherwise negative.

Laboratory Findings on Admission.—Leukocytes 32,500; neutrophils 89 per cent. Urinalysis negative.

Clinical Course.—At 3:15 A. M., 8, 13, '31 (approximately six hours after admission), patient had another chill followed by temperature of 103.8° F., and at 8 A. M. temperature was 97.6° F. Subsequent preoperative temperature did not go above 100° F. The preoperative pulse curve declined sharply with the temperature and did not go above 80. The patient continued to complain of abdominal pain which remained most intense in epigastrium, right hypochondrium and flank. He complained of severe headache during the second day and vomited once. Enemas produced good elimination from the lower bowel. The physical findings remained the same except for a gradual increase of tenderness in the right flank and an increase in the spasticity of the upper half of both recti muscles. Twelve hours after admission the leukocyte count dropped to 28,000 and the neutrophils increased to 92 per cent. Eighteen hours after admission leukocytes were 25,000 with 98 per cent neutrophils. The urine remained negative.

Diagnosis.—After 36-hours of observation it became evident that we were dealing with a surgical abdomen and that exploration was imperative. The diagnosis in my mind was still obscure. Acute appendicitis, because it is the commonest acute surgical disease in a patient of this age, was given

preference, but I could not help but feel suspicious of the upper abdomen, and the possibility of a perforated acute gastric or duodenal ulcer.

Treatment.—Sodium amytal analgesia, and light ether anesthesia. Exploration through a low paramedian incision. The appendix was found retrocecal lying postero-lateral to the cecum and ascending colon. It was completely gangrenous but no abscess had formed. It was amputated, stump inverted and abdomen closed without drainage.

Convalescence.—Uneventful except for a minor postoperative infection of the incision. The wound was completely healed and patient discharged on fourteenth day.

Dr. C. E. Baldree, Jr.—The above case for first 24-hours was a typical case of food poisoning. The nausea, vomiting, diarrhea and history were typical. In fact we thought we were dealing with a case of acute food poisoning. However, the epigastric discomfort which continued was not at all in keeping with cases of this nature. The rigidity of both recti muscles which continued was an indication of some surgical condition. I believe this patient had an acute enteritis which in the beginning was general throughout the gastro-intestinal canal and the appendix was involved in the process. The condition remaining in gastro-intestinal tract subsided and the inflammation continued on in the appendix. The chills and fever of 104° F., were certainly unusual for appendicitis. However, we felt we were dealing with a surgical condition and waited as long as possible before operation was advised. Cases of this type are certainly misleading and account for the continued high mortality from appendicitis if left unoperated upon.

Dr. J. L. Hasie.—The study of this case was very interesting and instructive. The stormy acute onset with nausea, vomiting, diarrhea, chill and high fever, plus the generalized abdominal tenderness and laboratory findings seemed to point to either an acute food poisoning or some acute intestinal allergic condition. The history of a recent previous attack seemed to point to intestinal allergy probably due to some specific article of diet, but careful questioning in regard to this point failed to bring to light any offending article of diet.

As regards botulism or other acute food poisoning, there was no history of the patient eating any canned foods, olives or other articles foreign to his usual diet. Therefore, the decision was made to treat the case conservatively and observe him closely for any changes which might occur.

The swift change of the picture in the succeeding twenty-four hours from that of food poisoning or allergy to one of a surgical condition of the

upper abdomen was very unusual, and with this change the decision was made to give the case further study. Within twelve hours after this decision, the picture presented was that of an acute surgical abdomen. The exact location of the pathology was in doubt but as Dr. McCarthy has stated, we considered the appendix the probable offender and were very gratified to find our judgment vindicated.

Cases of this type tax anyone's diagnostic ability and in most instances conservative treatment and close observation will usually make clear the obscurity of such types of abdominal pathology. The chief danger to the patient lies in waiting too long to open the abdomen, but a careful, able surgeon renders this danger negligible.

Conclusion by Dr. McCarthy.—To me, this case has been a valuable lesson on acute appendicitis, because it emphasizes how varied can be the history, symptoms, physical and laboratory findings associated with this disease. It is this variation from the usual text book picture that makes acute appendicitis such a dangerous and often disastrous disease. Such a lesson as we have just experienced brings up the old question; "Is it not better to operate early on suspicious evidence and forego the possibility of removing a normal appendix, than to procrastinate for a positive diagnosis and run the risk of perforation?" This rule has many advocates, and perhaps their mortality is lower than they who adopt the rule of watchful waiting. Because of my aversion to unnecessary surgery, I am inclined to follow the more conservative rule when the patient is in a hospital with facilities to operate within the hour of your decision. I will admit in this case that the pathology had advanced to a dangerous stage, and feel very grateful that we were awarded a cure.

VICKSBURG SANITARIUM AND CRAWFORD STREET HOSPITAL.

Staff Meeting October 10, 1931.

Abstract.—Spontaneous Pneumothorax.—Dr. L. J. Clark.

Patient.—A white unmarried male, aged 24 years, civil engineer by occupation, came to clinic on August 10, 1931.

Chief Complaint.—Pain in chest, indigestion. Patient stated the condition began as a cold, later having precordial pain and dyspnea.

Past History and Family History.—Not of interest.

Physical Examination.—Temperature 98° F; pulse 88; few rales in upper left chest.

The patient was instructed to go to bed and to keep quiet; ordinary medicines were given.

The patient returned seventeen days later. The pain was worse about the ensiform cartilage, extending up the sternum and to the left shoulder and arm. There was painful and difficult breathing. The movements of the chest were painful. His appetite was good; food agreed well; bowels were slightly constipated. There was no bladder trouble. Examination at this time showed his heart definitely displaced to the right; heart sounds distant on the left and heard better on the right. Left chest was somewhat resonant with distant breath sounds.

Fluoroscopic examination of the chest showed a marked displacement of the heart to right but not a transposition. The lungs were clear. There was a small amount of fluid at the left base with a definite fluid level. A skiagraph of chest showed a definite left pneumothorax with small amount of fluid at the base.

Blood.—Leukocytes, 9,400; small lymphocytes 32 per cent, large lymphocytes 4 per cent, large mononuclears 5 per cent, polymorphonuclear neutrophils 56 per cent, polymorphonuclear eosinophiles 3 per cent; no malaria; erythrocytes 4,192,000; hemoglobin 87 per cent; Wassermann, Kahn, and Kline and Young tests negative.

Urine showed nothing remarkable.

Patient was from out of town and returned home for his physician to give treatment.

Discussion.—Spontaneous pneumothorax occurs most often between the age of fifteen and forty-five; according to Mikalsky in 80 per cent of cases. Males are affected more often than females in proportion of four to one. This is explained on the basis of increased muscular effort in the male. It is said to occur with equal frequency on both sides of the chest.

Spontaneous pneumothorax may be multilocular or unilocular, depending on pleural limitation; partial or total; unilateral or bilateral; simple or complicated with effusion; and may be recurrent. Only about fifteen bilateral cases have been reported in the literature. Death does not necessarily ensue as might be expected as four of these recovered.

Spontaneous pneumothorax may be classified as of the closed type, meaning a sealing up of the pleural cavity; of the open type, if a free communication exists between the pleura and the pulmonary fistula; or of the alveolar type, if a check valve is developed. The various types may sometimes be differentiated by obtaining the manometric pressure.

Pulmonary tuberculosis is the most common cause of spontaneous pneumothorax. Causes are pneumonia, empyema, gangrene, rupture of lung

from bronchiectasis, pulmonary abscess, infarction, paracentesis, perforation from an adjacent air containing organ, and emphysema, usually associated with asthma. Certain cases occur in which the cause cannot be found.

No tuberculosis was demonstrated in this case. The possibility is that he had a bronchitis associated with pleurisy which resulted in the spontaneous pneumothorax.

VICKSBURG SANITARIUM AND CRAWFORD STREET HOSPITAL.

Staff Meeting October 10, 1931.

Abstract.—Repair of Median Nerve Following Injury.—Dr. J. A. K. Birchett, Jr.

Patient.—A colored male, hotel porter, aged 29 years.

Chief Complaint.—Numbness in thumb and first and second fingers of right hand and pain in right arm.

History of Present Complaint.—Three weeks ago, while scuffling with a fellow worker, an ice pick penetrated the right forearm on the anterior surface. After the injury there was burning and tingling of the hand and some slight bleeding from the wound. The wound was dressed and in a few days was healed, but there was extreme pain when scar was put under pressure and a sensation of needles in the arm. There was some muscle stiffness.

Past History.—No serious illnesses; no operations; denies venereal disease; general health good.

Physical Examination.—General examination was essentially negative. The right arm on examination showed a small contracted scar in the middle third on the anterior surface. There was pain when the scar was manipulated; some adherence of tendons to the scar. The ventral surface of the thenar eminence, the outer third of hand and the first and second fingers had no sensation of pain or temperature.

Laboratory examinations were essentially negative.

Procedure.—With the evidence of injury to the median nerve, surgical interference was suggested and accepted by patient. Under general anaesthesia, a longitudinal incision four inches long was made through the scar. The muscles and tendons were freed from scar tissue which had developed in the tract of the stab wound. This scar led to the deep muscles after separating the superficial tendons, and the nerve was exposed.

It was completely severed with ragged ends. The nerve was freshened by cutting at right angle and the nerve stretched slightly to facilitate approximation. Suturing was done by placing interrupted sutures around the nerve. The nerve

was replaced in its bed and the wound closed and dressed with the hand in flexion to take strain off of nerve.

Subsequence.—Healing by first intention. As yet there has been only slight improvement in sensation but the pain in scar has been relieved. It will take three to six months for nerve regeneration to occur.

FRENCH HOSPITAL.

A regular meeting of the French Hospital Staff was called to order Friday, September 25, 1931, Dr. M. J. Lyons, presiding. Those present were: Drs. G. C. Anderson, J. W. Atkinson, C. J. Brown, C. L. Cox, J. R. Daboval, E. B. Faget, F. Gallo, P. Graffagnino, A. V. Friedrichs, W. H. Harris, F. Loria, M. J. Lyons, S. C. Lyons, L. J. Menville, M. O. Miller, F. A. Overbay, F. J. Sicomo, D. N. Silvermann and W. R. Strange.

The report of deaths and discharges for the month of August was read by the secretary. A case of abscess of liver and one of cellulitis and septicemia were opened to general discussion.

Dr. Graffagnino presented a paper on "The Interruptions of Pregnancy." He divided pregnancy into two periods:—1. Before viability or before the twenty-eighth week, and 2. After viability or after the twenty-eighth week.

The indications for interrupting pregnancy before viability are:—

1. As a direct means to save the mother's life.
2. To do away with conditions that may threaten her life.
3. To avoid certain dangers that may supervene as leukemia or chronic tuberculosis.

The method for interrupting pregnancy before the fourth month are dilatation of the cervical canal, separation of ovum and insertion of pack.

The contents of the uterus usually come away with the pack. After the fourth month if haste is required a vaginal hysterotomy may be done.

The indications for interrupting pregnancy after viability are:—toxemia, disproportion of pelvis, placenta previa or dead fetus. The best method is that procedure which not only imitates labor but must be the safest plan for the mother and child. Some of the methods are:

1. Puncturing the membranes—this is uncertain and only 40 per cent successful.

2. Bougies or catheters—this is safest and method of choice, successful 75 to 80 per cent of cases, labor sets in 8 hours after.

3. Hydrostatic bag—used to dilate the cervix and initiate labor. This method is successful in 95 per cent of the cases, labor sets in 6 hours after and anesthetic is necessary.

However the complications in the above methods are hemorrhage, sepsis, laceration of cervix, prolapse of cord, also the morbidity and mortality is high.

The medical methods to induce labor are:—

1. Mathieu gives quinine, castor oil and pituitrin. The first attempt may not be successful but after the second or third labor sets in in 90 per cent of cases.

2. Reiss uses quinine, castor oil, pituitrin and stripping of membranes.

Dr. Graffagnino stressed the point that the decision to interfere should be based entirely on objective signs and clinical findings; more over, it should never be done without consultations with another physician who assumes his share of the risk and responsibility.

There being no further business the meeting adjourned.

C. J. Brown, M. D.

TRANSACTIONS OF ORLEANS PARISH MEDICAL SOCIETY

CALENDAR.

- November 2. Eye, Ear, Nose and Throat Hospital Staff, 8 P. M.
- November 6. Pathological Conference, Hotel Dieu, 11 A. M. to 12 Noon.
- November 6. Physiology Seminar, Tulane Medical School, 5 P. M.
- November 9. ORLEANS PARISH MEDICAL SOCIETY, 8 P. M.
- November 11. Touro Infirmary Staff, 8 P. M.
- November 13. Pathological Conference, Hotel Dieu, 11 A. M. to 12 Noon.
- November 13. Physiology Seminar, Tulane Medical School, 5 P. M.

- November 13. French Hospital Staff, 8 P. M.
- November 16. Hotel Dieu Staff, 8 P. M.
- November 17. Baptist Hospital Staff, 8 P. M.
- November 17. Charity Hospital Medical Section, 8 P. M.
- November 18. Charity Hospital Surgical Section, 8 P. M.
- November 18. First day, Southern Medical Association meeting.
- November 19—Eye, Ear, Nose and Throat Club, 8 P. M.
- November 19. New Orleans Hospital Council, Mercy Hospital, 7:30 P. M.

November 20. Pathological Conference, Hotel Dieu, 11 A. M. to 12 Noon.

November 20. I. C. R. R. Hospital, 12 Noon.

November 20. Physiology Seminar, Tulane Medical School, 5 P. M.

November 23. ORLEANS PARISH MEDICAL SOCIETY, 8 P. M. Election of Delegates to Louisiana State Medical Society and Nominations for Officers, 1932.

November 27—Pathological Conference, Hotel Dieu, 11 A. M. to 12 Noon.

November 27—Physiology Seminar, Tulane Medical School, 5 P. M.

During the month of October, besides the regular meeting of the Board of Directors, the Society held a joint quarterly executive and Scientific Meeting and the sixth Stanford E. Chaille Memorial Oration.

At the joint quarterly executive and scientific meeting the following program was presented:

Chaulmoogra Oil in Eye, Ear, Nose and Throat. Ey: Dr. T. J. Dimitry
Discussed by Drs. Homer Dupuy, Chas. A. Bahn, Spencer B. McNair, Sam Cohen and closed by Dr. Dimitry.

Some Clinical Concepts of Heart Failure.

By: Dr. Sidney M. Copland
Discussed by Drs. I. I. Lemann, Chaille Jamison and closed by Dr. Copland.

Reports of the officers and special standing committees of the Society for the Third Quarter were read. The following resolutions were adopted:

It is proper that a fitting record be made of the sorrow of the Orleans Parish Medical Society at the sudden death on August 17, 1931, of Dr. Aristides Agramonte.

This Society had honored itself in electing him to honorary membership in recognition of his labors as one of the devoted band of four, Reed, Carroll, Agramonte, and the martyr, Lazear. To their brilliant demonstration of the mosquito transmission of yellow fever, New Orleans owes its freedom from the pestilence that in the past century so frequently ravaged it. To this discovery, too, our city owes much of its prosperity and progress, for through it we have been freed from unnecessary and harassing restriction of our commerce. These heroes of the American Commission on Yellow Fever in Cuba deserve our eternal gratitude. There are no figures in our long history to whom we owe more.

Dr. Agramonte was for a long period professor in the University of Havana, where he rendered great service to the medical profession of Cuba. His acceptance of the professorship of Tropical

Medicine in the Louisiana State University Medical School, and his removal to New Orleans only a few weeks before his death, had led to the anticipation by the members of the Orleans Parish Medical Society of many years of pleasant association.

BE IT RESOLVED, That a page of the minutes be devoted to this tribute to the memory of Dr. Agramonte.

BE IT FURTHER RESOLVED, That a copy of these resolutions be sent to the family with an expression of the Society's sincere sympathy and condolence.

Whereas the Orleans Parish Medical Society has learned with sorrow of the death of Dr. Jules J. Sarrazin, associate member, on September 14, 1931,

Whereas Dr. Sarrazin, throughout his long career, had been an outstanding figure in the dental profession of this City, and has endeared himself to his colleagues and associates,

BE IT RESOLVED, That this Society tender to his bereaved family this expression of its admiration of his sterling qualities and of its regret at his untimely passing.

BE IT FURTHER RESOLVED, That these resolutions be spread upon the minutes as a tribute to the memory of Dr. Sarrazin.

The sixth Stanford E. Chaille Memorial Oration was held October 26. Dr. Walter E. Sistrunk, Jr., of Dallas, Texas, was the orator and presented a most interesting paper on "Chronic Streptococcal Infections of the Female Genital Tract." A clinical and experimental study of their effect upon the health of women.

Plans for the coming meeting of the Southern Medical Association are being completed as the meeting is nearing. The committees have been working diligently in order to get their programs into the office of the Southern Medical Association for the coming issue of the Journal. The meeting will be a most interesting one from every standpoint.

The following doctors were elected to membership:

Active Membership: Drs. Herbert E. Cannon, Harry B. Levey, Henry G. Butler, Jacob O. Hoth, Morris Shushan and J. Thornwell Witherspoon.

Interne Membership: Drs. Pascal L. Danna, Harrie A. Patterson and Thomas R. Ramsay.

The following applications for Interne Membership are posted:

Drs. Nancy D. Campbell, Jeanne Cecile Roeling and Carroll F. Gelbke.

We have learned that Dr. Raymond R. Roberts is now associated with Dr. Maud Loeber.

TREASURER'S REPORT.

Actual book balance 8/31/31.....	\$ 885.52
Credits	1,016.02
	\$1,901.54
Expenditures	\$ 485.66
Actual book balance 9/30/31.....	\$1,415.88

LIBRARIAN'S REPORT

Three hundred and sixty-two books have been added to the library during the vacation months, July-September. Of these 188 were received by gift, 95 by binding, 54 by purchase and 25 from the New Orleans Medical and Surgical Journal. A notation of titles of recent date is appended herewith.

A notation of some of the reference questions on which we furnished material was kept during August and September. The following are chosen from this list as evidence of the diversity of interests which we have served:

- Industrial lead poisoning.
 - Dysachondroplasia.
 - Gumma of the bladder.
 - Tests for arsenic.
 - Diagnosis for dementia praecox.
 - Hernia of the pregnant uterus.
 - Use of bats in the eradication of mosquitoes.
 - Fibroids of the ovaries.
 - Urea in urine.
 - Intravenous injections of drugs in the treatment of psoriasis.
 - Physical requirements for work in compressed air—Prevention of caisson disease.
 - Sanitation and prevention of disease in the tropics.
 - Basis and development of personality.
 - Ainhum.
- This has been the busiest summer we have ever had in the Library. Study and reference work has continued steadily throughout the hot weather. Three of the staffs of the two libraries have been on duty at all times and have been kept busy answering the calls of our patrons.

NEW BOOKS.

July-September, 1931.

- Crossen—Operative gynecology. 1930.
- Trélease & Fraser—Preparation of scientific papers. 1930.

- Rockwell—Streptococcic Blood Stream Infections. 1930.
- Halliburton—Handbook of Physiology. 1930.
- Loewenberg—Diagnostic Methods and Interpretation of Internal Medicine. 1931.
- Gager—Hypertension. 1930.
- McLester—Nutrition and Diet in Health and Disease. 1931.
- International Medical Annual. 1931.
- Beaumont—Recent Advances in Medicine. 1931.
- Snow—Textbook of Physical Therapy. 1931.
- McBride—Crippled Children. 1931.
- Rowntree—Clinical Study of Addison's Disease. 1931.
- Miller—Introduction to Gynecology. 1931.
- White—Heart Disease. 1931.
- Piette—Textbook of Histology. 1931.
- Rea—Diet Book. 1931.
- Walsheid—Abdomino-pelvic Diagnosis in Women. 1931.
- Caufield—Infant Welfare Movement in the 18th Century. 1931.
- Alexander—Criminal, the Judge and the Public. 1931.
- Roberts—Eye, Ear, Nose and Throat for Nurses. 1931.
- Buie—Proctoscopic Examination and Treatment of Hemorrhoids. 1931.
- Pearl—Introduction to Medical Biometry and Statistics. 1930.
- Cathcart—Treatment of Chronic Deafness. 1931.
- Thomson—Manual of Surgery. 1931.
- Petty—Diabetes. 1931.
- American Medical Association—Directory. 1931.
- Budd—Typhoid Fever. 1931.
- Walters—Obstructive Jaundice. 1930.
- Chase—Physical Requirements for Commercial Flyers. 1930.
- U. S. Army—Manual of Splints and Appliances. 1931.
- American College of Surgeons—Yearbook 1929.
- American Society for Control of Cancer—Essential Facts about Cancer. 1924.
- American Academy of Ophthalmology and Otolaryngology—Transactions 1921-22, 1924-25.
- American Medical Association—Council on Pharmacy and Chemistry. Reprints. 1930.
- American Medical Association—Congress on Medical Education. 1931.
- American Medical Association—Therapeutic Research Council Reports. 1930.
- American Medical Association—New and Non-Official Remedies. 1930-31.
- Southern Surgical Association Transactions. 1930-31.
- Central States Pediatric Society—Transactions. 1930.

H. THEODORE SIMON, M. D.,
Secretary.

LOUISIANA STATE MEDICAL SOCIETY NEWS

H. Theodore Simon, M. D., Associate Editor.

AMERICAN MEDICINE—MEDICAL ECONOMICS.*

In bringing to the front the question of Medical Economics, I would have the profession distinctly understand that I have no thought or wish or scheme for devising means and ways of building up the individual doctor's bank account and his financial standard per se.

The question before the American Medical Profession today and more vitally the American public in general, is whether our profession shall continue to operate as a great system, pulsating with a human heart and the individual doctor as the unit, spurred on by personal initiative and ambition, or shall we have on the other hand, a cold blooded machinery in its stead, with the individual doctor acting merely as a cog in the wheel, attempting to operate as directed by "higher ups," with none of the personal freedom, initiative and stimulous which has characterized our activities in the past.

The former is a principle peculiar to America and has made us great: the latter is foreign to our very nature and confronts us only through the misguided efforts of misinformed influences.

The history of medicine dates back to the almost forgotten past, into the dark recesses of Egyptian, Hindu, Chinese and Grecian lore; in fact, into the era of Mythology when Apollo reigned on Mt. Olympus and sent his mythical son, Aesculapius, to earth to serve the sick and afflicted.

No profession or trade, no avocation or vocation has such ancient history. None of the religions of man, date back so far, only the belief in a God parallels, or antedates the plans of man for the cure of the sick.

Christ came to earth and cured the spiritually and physically ill: his disciples laid aside their fishing nets and went abroad teaching the doctrines of his faith, with no thought of world remuneration. Yet, in this modern day we see, after only 2000 years, his modern disciples and those of other faiths, budgeted for, by those communities whom they serve, and no one censures these godly men when we see them move on to larger and more remunerative fields. This is as it should be, though their budgets in most cases are niggardly small.

Tracing the history of all the trades and professions of man, from their earliest inception to

this present practical day, we find the imprint of evolution in bold relief, scientifically, practically and economically.

Yet in the practice of the Aesculapean Art today, we find still clinging with a death like grip, certain traditional teachings, influences and impracticalities born to us at the birth of history. The practice of medicine has progressed to its present high standard, because of her traditions and we can likewise truthfully say in spite of some of her traditions.

And what is the tradition of medicine which has separated it from the other professions and makes it stand out as touched by the hand of God?

The teaching and practice of its members, of alleviating pain wherever found, but more especially in those unable to provide for themselves.

However, through extraneous and selfish influences, this tradition has been distorted, having it appear that we must serve any and all, with no thought of ones' self, those dependent upon us, or the future of our profession.

I hold it the duty of all men to so conduct themselves and the business in which they may be engaged, in such manner that their business may increase in scope and become more useful to society in the future. The practice of medicine is our job and it becomes us to so conduct it that it shall become more useful to humanity in the future.

I know of no machinery, established in this country, which will provide ways and means for maintaining the doctor at a high standard of scientific development and equipment, excepting the individual efforts of the doctor himself. Unless these individual efforts produce the ways and means, the individual doctor suffers deterioration, and when he deteriorates, general medicine deteriorates and the public, in the end, must feel the effect.

Modern civilization, if such it can be called, and modern human nature familiar to us all, tends to shift responsibilities to the shoulders of others. Slowly and by degrees, as the complexity of society has increased, pressure from without our ranks and weakness from within, has enabled selfish individuals and organizations to amend our original tradition of free service to the weak, to charity service to the strong.

Tradition has been defined as the process by which the teachings of one generation, are fixed

*An address delivered before the Sixth District Medical Society, Jackson, La., October 14, 1931.

upon those of the future. Applied to human activities, this practice would result in stasis and no progress.

We are living in a changing world and with or without our will, we must change with it.

The audacity with which the individual and the many organized individuals demand the doctors' service regardless, must be met with the calm and dignified request for information as to where lies the responsibility.

There is no sin in the eyes of God or just men, in refusing to accept as our responsibility that which rightfully rests upon the shoulders of others. The practice of our profession is our business and only means of livelihood, and society, however small the community, must come to learn that the care of the indigent sick is just as much their duty as is the care of the indigent hungry. To shift the whole burden to the shoulders of a small group of individuals, is manifestly unfair.

The doctor today, pays the State of Louisiana a special tax for the privilege of practicing his profession, just as the merchant does for the privilege of selling his goods; he writes his check for the Community Charity fund, he donates to the Salvation Army fund, the Red Cross and other charity demands, just as other good citizens, and yet the community demands that he alone shoulder the burden of providing medical care for the indigent.

Where is the community, or the individual who would be so unfair as to demand of their local merchants that they assume the expense of feeding and clothing the indigent in their midst?

It is not done because distorted tradition has not so directed. When communities learn and act upon the principle that the care of the indigent, whether hungry or sick, is their problem, many of the doctor's problems will be solved and many classed as indigent, will get a reclassification.

Coming in from all sides under various guises and disguises, certain activities are lopping off the sources of the doctors' income, while we sit idly by playing the faux pas and living on distorted tradition.

Many medical men will hold up their hands in horror when the question of finances is mentioned in a medical convention, though their first thought usually, is the fee in actual practice. I respect their opinions and grant them their right to act and practice as consistently and inconsistently as they choose, but where is the evil of discussing finances?

Our State and various Parish Associations in their constitution and by-laws, provide among other things, that the material interests of the doctor shall be cared for. The Great Teacher of man discussed money in many of His parables, urged thrift, the practice of economy, and in no instance did He say other than the love of money was an evil.

It is not my purpose, to attempt other than to put you on your guard in the matter of the present medical economic trend.

The State Board of Health, I am informed by its President, does not desire or intend to enter the practice of curative medicine, but realizes the field of preventive medicine is the activity for which it was created. However, in many instances, over-zealous health units are stepping out into active competition with the local profession. I have heard many complaints of this kind and in most instances, it has been shown that members of the local profession, by their assistance, have made these programs possible.

Sixty-two per cent of the hospital beds of the United States today, are charity, or semi-charity. Seventy-one per cent of the sick today are treated as charity, or semi-charity, and the number is mounting. Tuberculous Clinics, Children's Clinics, Prenatal Care Clinics, Venereal Clinics, Out-door Institution Clinics, unrestrained, are operated by the doctors on a charity basis in direct competition with themselves, all because of distorted tradition.

The City of Shreveport, and I use this city only as an example, is using our tax money to provide medical care for people who are well able to pay for medical service. Under the guise of Medical Supervision of school children, medical service is rendered gratis where parents are well able to pay.

Neither the State, its subdivisions or municipalities have any right to enter the field of curative medicine, except among its indigent, and I hold here that it is the State's duty and in no sense, the medical profession's.

Scattered over our State from one end to the other, are corporations actively engaged in the practice of medicine, yet the State Medical Practice Act provides that only an individual who can stand certain medical examinations shall be permitted to practice medicine.

The Supreme Court of California has recently decided that corporations cannot practice medicine in that state and their corporations and methods of practicing medicine over there, are the same as is going on in Louisiana.

S. C. Barrow, M. D.,
Shreveport, La.

J. B. Sewell, President,
E. M. Toler, Secretary.

The Thirteenth Annual Fall meeting of the Sixth District Medical Society was held in the East Louisiana State Hospital at Jackson, Louisiana on Wednesday, October 14, 1931, opening at 10 a. m. sharp. The meeting was called to order by the President, Dr. F. F. Young, Covington, Louisiana, who gave a short address. The Invocation was delivered by Rev. R. P. Johnson of St. Francisville, La. This was followed by the orchestra, who played "America" wonderfully, especially when it is considered that all of the musicians were inmates of the State Institution and, as Dr. Smith explained, were, at times, dangerous and violent—had we not been told, no one would have thought so far to all appearances, they were just ordinary people, intent on doing their part well. Dr. Glenn Smith, in his usual affable and pleasing manner, gave the address of "Welcome." Then followed routine business of the meeting, during which a committee was appointed to draft resolution on the death of our lamented member, Dr. H. T. Nicolle. A telegram from the Secretary of Louisiana State Medical Society, Dr. P. T. Talbot, expressing regrets at not being able to attend our meeting and wishing us much success was read and received much applause. After this Hon. O. K. Allen was presented to the audience as the representative of Governor Long, who could not attend and gave us an interesting talk, telling us some of the insights of the workings of the Highway Department. The paper on "The Economical Trend in Medicine" by Dr. Sidney C. Barrow, President of the Louisiana State Medical Society, seemed to have met unanimous approval for a motion followed, which

passed unanimously, giving him a vote of thanks and approval of his views and pledging hearty support. The paper by Dr. C. S. Miller, Jr., of the East Louisiana State Hospital on "Psychiatry and the General Practitioner" was splendid from every viewpoint, showing that the writer is both a thinker and observer. It was capably discussed by Dr. Lea of Jackson, Dr. Roland Young of Covington and several others. "Roentgen-ray in Skin Diseases" was the title of a paper by Dr. Lester J. Williams, a finished scholar in his specialty and it was interesting to learn how many diseases of the skin yielded better to this scientific remedy than to drugs. It was discussed by Dr. C. S. Barrow in such a thoroughly scientific way that the speaker held the audience wrapped in attention. Dr. Lucius D. McGehee, of Hammond, who was presented to the audience as President of the Florida Parishes Medical Society and who was down for a paper on the "General Practitioner and Specialist" "fooled" the meeting by giving an off-hand but splendid talk on the subject. He portrayed and showed by examples the undying love and respect many of the clients developed for the family physician and how wonderful it was to get up some cold night to go forth and relieve pain to a suffering human and his talk was well received. The meeting then closed with a few words from Dr. Young, the President in praise of Dr. Smith and his staff as hosts, when on motion a rising vote of thanks was given them. Everybody then retired to the dining hall, where a splendid luncheon was served.

F. F. Young, Pres.

PROCEEDINGS OF THE EIGHTH DISTRICT MEDICAL SOCIETY.

A splendid and instructive meeting of the Eighth District Medical Society was held at Alexandria, La., on Wednesday, October 7, 1931, being called to order in the Bolton High School building by Dr. Carson Ried of Natchitoches, Vice-President. The minutes were read by the Secretary, Dr. J. H. Landrum of Alexandria, and approved.

Before the large assembly Dr. Willis D. Campbell of Memphis, Tennessee discussed "Un-united Fracture" in a most interesting manner, following which the members adjourned to the school cafeteria where Miss Ethel Spears, director, and her fine corps of assistants served them a delicious luncheon. For this enjoyable feature of the meeting the Society, through Dr. M. H. Foster of Alexandria, extended hearty thanks to Miss Spears.

Re-assembling in the place of meeting the members listened with deep interest to the discussion by Dr. Oscar W. Bethea of New Orleans of "An-

gina Pectoris"; who was followed by Dr. Daniel M. Silverman of New Orleans in an informative and much enjoyed discussion of "Gastro-Peptic Diseases."

Two most entertaining and enlightening films were presented by the Petrolagar Laboratories of Chicago, by use of projection lantern, one on appendicitis, and the other on diverticulum of the bladder.

At the conclusion of the program the meeting adjourned, to reconvene in October, 1932.

Dr. J. H. Landrum, Secretary.

POST-GRADUATE MEDICAL LECTURES.

The Journal has on file the "Green Book" issued by the Association of Lectures for Medical Post-Graduate Courses in Berlin. This little booklet gives full information of the facilities for post-graduate work that exists in Berlin at the present time. The lecturers, courses of lectures, the hours, where held, and all other information is contained in the book. Anyone interested in post-graduate European instruction is welcome to consult this booklet either in the office of the Journal, or, if they prefer, it will be sent to him.

NEWS NOTES.

Dr. Oscar Bethea addressed the North Mississippi Medical Society at a joint meeting held in conjunction with the Northeast Mississippi 13-County Medical Society at the University of Mississippi. This meeting was held in honor of the University of Mississippi Medical School. The subject of Dr. Bethea's address was "The Diagnosis of Diseases of the Lung."

Assistant Surgeon Charles W. Folsom has been relieved from duty at New Orleans, Louisiana, and assigned to duty at Nashville, Tennessee, by Surgeon General Cummings of the United States Public Health Service.

Dr. John H. Musser and Dr. Alton Ochsner are on the program of the Inter-State Medical Society which convened in Milwaukee the week of October 19.

Dr. J. A. O'Hara, President of the Louisiana State Board of Health, in a circular letter calls attention to the advisability at the present time, when laboring materials are plentiful and cheap, of improving sanitary conditions of both homes and small towns throughout the State. He writes that many of the smaller towns are without water supplies and sewerage systems. Others have water supplies which are inadequate. Now is the time to improve water systems, sewerage systems, and means of collecting and disposing of garbage. City

and country homes should be improved where necessary from the point of view of the plumbing, lighting, and ventilation.

Dr. C. Jeff Miller and Dr. Alton Ochsner of New Orleans presented papers at the recent Clinical Session of the American College of Surgeons in New York.

Dr. Daniel N. Silverman, Councilor of the Second District, recently addressed the Third District Medical Society at Lafayette on "The Medical Management of Peptic Ulcer and Some of Its Complications." Dr. Silverman attended the reorganization meeting of the Eighth District Medical Society held October 7 at Alexandria, where he spoke on "Recent Observations in the Diagnosis and Treatment of Some Gastro-Intestinal Conditions."

Dr. Francis Carter Wood of Columbia University; Dr. Bryon Jackson of Scranton, Pa., and Dr. Leon J. Menville of New Orleans have been appointed to serve on a committee representing the Radiological Society of North America, for the coming American Congress of Radiology to be held in Chicago, 1933.

CIVIL SERVICE EXAMINATIONS.

The United States Civil Service Commission announces examinations for the position of Senior Medical Officer, \$4,600 a year; Medical Officer, \$3,800 a year; Associate Medical Officer, \$3,200 a year. Applications for these examinations, grades of which will be rated entirely on education and training experience, must be filed either in the Custom House, New Orleans, Louisiana, or directly with the United States Civil Service Commission, Washington, D. C. These positions are to fill vacancies in the Veterans' Administration, United States Public Health Service, Indian Service, Panama Canal Service and Coast and Geodetic Survey.

HEALTH OF NEW ORLEANS.

The Bureau of Census, Division of Vital Statistics of the Department of Commerce, reports for the week ending September 12, 1931, 147 deaths in the City of New Orleans, giving a death rate of 16.4. The deaths were practically equally divided between the white and colored races. For the week ending September 19, there were only 130 deaths, 78 in the white and 52 in the colored, giving a death rate of 14.5. For the next week,

the death rate had increased slightly, going up to 15.7 as a result of total of 141 deaths, 79 white and 62 colored. Seven of the white deaths were in children under one year of age, giving an infant mortality rate of 58. For the week ending October 3 the death rate was 11.4. There were 102 deaths in which 65 were white and 35 were the colored race. For the week ending October 10, the death rate was 13.5, considerably under the 16.9 death rate for the first 41 weeks of the year. Sixty-nine of these deaths were in the white race and 52 in the colored.

INFECTIOUS DISEASES OF LOUISIANA.

Dr. J. A. O'Hara, in collaboration with the United States Public Health Service, has issued weekly morbidity reports of Louisiana. The outstanding features of these reports for the last month are as follows: For the week ending September 19, there were reported 76 cases of syphilis, 52 cases of typhoid fever, 40 cases of gonorrhea, 23 of diphtheria, and 21 cases of pulmonary tuberculosis. Three cases of poliomyelitis were reported this week. For the week ending September 26, syphilis was again the most frequent of reportable diseases, typhoid fever had increased 4 cases, and there were 44 cases of diphtheria, 23 cases of pneumonia. The next week ending October 3, there were 41 cases of syphilis reported, 59 cases of typhoid fever, 22 cases of malaria, and 32 cases of diphtheria. One case of smallpox and one case of leprosy were also reported. The typhoid fever cases reported in largest numbers were from Assumption and Avoyelles Parishes, with 12 cases each. For the week ending October 10, 47 cases of syphilis were reported, 40 cases of typhoid fever, of which 19 came from the Parish of Orleans, most of them being imported. There were 55 cases of pulmonary tuberculosis, 22 of diphtheria, and 13 of pneumonia. For the week of October 17, diphtheria led all other reportable diseases, there being 33 reported. The incidence of typhoid fever had dropped slightly, and only 30 new cases appearing in the list of infectious diseases. There were also 22 cases of pulmonary tuberculosis reported, 17 cases of malaria, 16 cases of scarlet fever. One case of poliomyelitis and 3 of epidemic meningitis were also listed.

WOMAN'S AUXILIARY NEWS.

The South, Louisiana and New Orleans are looking forward eagerly to the meeting of the South-

ern Medical Association which meets in New Orleans, November 18 to 21, anticipating the matter of enjoyment and pleasure that will be ours when we renew old friendship and gain new ones. So with this object in view, we are printing the names of the officers of the Woman's Auxiliary to the Southern Medical Association to welcome heartily and to familiarize ourselves with the names of these women who are doing their all for Auxiliary work.

President—Mrs. S. A. Collom, Texarkana, Tex.

President-Elect—Mrs. Charles E. Oates, North Little Rock, Ark.

First Vice-President—Mrs. George A. Hendon, Louisville, Ky.

Second Vice-President—Mrs. Milton Smith Lewis, Nashville, Tenn.

Recording Secretary—Mrs. Walter C. Swann, Huntington, W. Va.

Corresponding Secretary—Mrs. S. A. Collom, Jr., Texarkana, Tex.

Treasurer—Mrs. Southgate Leigh, Norfolk, Va.

Historian—Mrs. Augustus Street, Vicksburg, Miss.

Parliamentarian—Mrs. Edward Jelks, Jacksonville, Fla.

In rotation comes the program that the Woman's Auxiliary to the Orleans Parish Medical Society have made up for the entertainment of the visiting ladies:

Wednesday, November 18:

9 a. m. to noon—Registration (Lobby of Roosevelt Hotel) Headquarters.

10 a. m. to 12:30—Executive Board Meeting—Roosevelt.

12:30 to 3:30—Luncheon and open session of Auxiliary, tickets costing \$1.00.

8 p. m.—President of S. M. A. Reception and Dance, Auditorium.

Thursday, November 19:

9:30 a. m. to noon—Business session—Roosevelt.

9 a. m. to noon—Golf tournament at New Orleans Country Club.

12:30 to 2 p. m.—Luncheon in French Quarter with entertainment. Sight-seeing trips with guides through Frenchtown immediately after luncheon.

8:00 p. m. to 10:30—Entertainment at the Auditorium given by the members of the Woman's Auxiliary to the Orleans Parish Medical Society, followed by informal reception.

Friday, November 20:

9:30 a. m.—Executive Board Meeting.

9:30 a. m.—Trip to Gulf Coast.

It is suggested that the Board Meeting be held during trip. The train is taken from the L. and N. Station in New Orleans. Debarkation at Pass Christian where busses will meet train and the ladies will be taken on a scenic drive along the Gulf Coast, from there to Biloxi, Miss., with a stop over for luncheon at prominent hotel. This is being arranged at a minimum cost and those taking this well worthwhile trip will do so at a far less cost than the usual rate. The returning train is scheduled to arrive in New Orleans at 6:10 p. m.

The Woman's Auxiliary to the Louisiana State Medical Society is glad to welcome into the fold a new organization and all our good wishes go to this new sister—for through the energy of Mrs. C. P. Gray and Mrs. Vaughan, a meeting was called in response to our Chairman of Organization Mrs. A. A. Herold's letter at the General Hospital at Bastrop and the organization of the Auxiliary to the Moorehouse Parish Medical Society was perfected.

The following officers were elected:

President—Mrs. R. B. Leavell, Bastrop.

Vice-President—Mrs. E. M. Clark, Mer Rouge.

Recording Secretary—Mrs. W. A. Rogers, Bastrop.

Corresponding Secretary—Mrs. J. N. Jones, Bastrop.

Treasurer—Mrs. F. L. Sims, Bastrop.

The Woman's Auxiliary to the Ouachita Parish Medical Society will start their activities for the year on Wednesday, October 21. The hostesses on this occasion will be Mesdames J. John Pracher, John Snelling and L. L. Shlenker. A very good

program has been arranged, which consists of a paper by Mrs. E. R. Yancey, and a vocal solo by Mrs. M. Pearce and with this in view the ladies are assured of not only an enjoyable time but also an instructive one.

From Lake Charles comes the encouraging news that the Woman's Auxiliary to the Calcasieu Parish Medical Society has held its second meeting of the year at the home of Mrs. R. G. Holbrook—when a most enjoyable time was enjoyed and where twenty members present were enthusiastic about the prospects of the coming year and what they intended to accomplish with even limited means. Mrs. Watkins and Mrs. G. C. McKinney assisted the hostess. Their next meeting will be held the second week in November with Mrs. T. H. Watkins and Mrs. W. P. Birdelon as hostesses.

The Woman's Auxiliary to the Orleans Parish Medical Society started this year with a large and most enthusiastic meeting given at the Orleans Club by the executive board. The reports of the various officers were read and a very ambitious program was outlined for the coming months. The Auxiliary is entering its third year of work and so quite naturally has its work more or less organized. Hygeia is being pushed and a speaker's bureau appointed to be at the service of the Auxiliary for any occasions—even now its members have visited many schools speaking in favor of Hygeia.

Mrs. Charles Rosen spoke briefly on the needs of the community chest asking the help of the members to put it over the top.

Dr. H. A. E. Walthers introduced Dr. Valarie Parker of New York, who is in New Orleans for a three months stay to instruct the community of the great need for proper Social Hygenia. Dr. Parker gave a talk which was instructive, interesting and enlightening. The meeting ended with a most delightful musical program.

JAMBALAYA.

We still get echoes, suggestions or what you will from the meeting of the Woman's Auxiliary to the A. M. A. held last June, one valuable idea which was stressed, was the keeping of clippings

from newspapers and minutes, etc., to be filed away for the purpose of making State histories.

Another statement was that the Auxiliary to the Orleans Parish ranked sixth or seventh in membership which was quite a feather in our cap.

Our National President-Elect Mrs. W. J. Freeman of Philadelphia has been detained indefinitely in Europe by the illness of her son. We will be the losers in November at the meeting of the Southern by the absence of Mrs. Freeman.

An interesting report comes from Mrs. A. B. McClothlan who attended the meeting of the Auxiliary to the Kentucky Medical Society. She tells us of the wonderful work that has been done in the study of the State Medical and Health Laws and many other worthwhile activities.

We congratulate Texas on their wonderful showing; for there are already forty-three working Auxiliaries.

It is hoped that some of our Louisiana Auxiliaries will be aided by these valuable suggestions when working up their line of work or study for the years we are printing an excellent program proposed by Mrs. F. E. Coulters of California, Chairman of programs.

They follow:

September—"Why an auxiliary?"

October—"Working principles of our own county health unit."

November—"Common defects in children."

December—"Teeth and their relations to health."

January—"What are we doing for the physically under privileged child?"

February—"Mental hygiene."

March—"Book review" and "What our county is doing for the mentally ill."

April—"Book review" and "Our state health laws."

M. H. Musser,
State Publicity Chairman.

MISSISSIPPI STATE MEDICAL ASSOCIATION NEWS

L. S. Lippincott, Editor

Jacob S. Ullman, Associate Editor

D. W. Jones, Associate Editor

THAT WE MAY KNOW EACH OTHER BETTER.

Dr. James Walter Lucas was born at French Camp, Choctaw County, Mississippi, on the fourth day of March, 1872. He graduated from the French Camp Academy in 1900 and received his

B. A. degree from Mississippi College in 1893.

For three years he was principal of the High School at Kilmichael.

He graduated in Medicine from the University of the South with the honor of being salutatorian of his class. He served as intern in the Vicksburg Hospital between courses and his first professional services were for a railroad company in Guatamala, Central America.

For the last thirty-one years he has been actively engaged in the practice of his profession at Moorhead. He took some postgraduate work in medicine and surgery at the New York Polyclinic in 1904 and in Chicago in 1912. He had the very enjoyable distinction of being the official physician of the American Educational Association for eight years, coming in touch with some of the best writers of the nation. His record as County Health Officer in a time of need was efficient and approved. He has served as local surgeon of the Southern and C. & G. Railroads for twenty-five years and as District Surgeon for the Y. & M. V. Railroad for the last twenty-five years. He has been an active member of his District, State, and Southern Medical and Railroad Associations all along the way.

Dr. Lucas has a wife and four children, Dr. John F. Lucas, his oldest son, a graduate in medicine from Tulane University and a member of the Clinic of Drs. Gamble Brothers and Montgomery at Greenville; Lieutenant Joseph W. Lucas and Ensign H. D. Lucas, graduates of the United

States Naval Academy, Annapolis, and now serving as officers in the United States Navy, and his daughter, Miss Louise Lucas, who will receive her B. A. degree from college next year.



JAMES WALTER LUCAS, M. D.
Moorhead, Mississippi
Councilor, First District.
Mississippi State Medical Association.

CALENDAR.

November 2: Staff of Jackson County Hospital, 7:30 p. m.; Staff of Meridian Sanitarium, 7 p. m.

November 3: Staff of King's Daughters' Hospital, Brookhaven, 7:30 p. m.

November 4: Staff of Chamberlain-Rice Hospital, Natchez; Staff of Vicksburg Infirmary, 7:30 p. m.; Staff of Rush's Infirmary, Meridian, 7 p. m.; Staff of Dr. F. G. Riley's Children and Maternity Hospital and Clinic, Meridian, 7 p. m.; Clarksdale and Six Counties Medical Society, Clarksdale, 7:30 p. m.

November 5: Pike County Medical Society, McComb, 7:30 p. m.

November 6: Natchez Medical Club, 1 p. m.

November 9: Staff of Vicksburg Sanitarium, 6:30 p. m.

November 10: Issaquena-Sharkey-Warren Counties Medical Society, Y. M. C. A. Vicksburg, 7 p. m.; Staff of Natchez Sanatorium, 7 p. m.; Winston County Medical Fraternity, Louisville.

November 11: Staff of King's Daughters' Hospital, Greenville, 7 p. m.

November 12: Staff of Vicksburg Hospital, 7:30 p. m.

November 13: Staff of Anderson Infirmary, Meridian, 7 p. m.

November 17: Staff of Natchez Charity Hospital, 8 p. m.

November 20: Natchez Medical Club, 1 p. m.

December 1: Claiborne County Medical Society, 3 p. m.; Staff of King's Daughters' Hospital, Brookhaven, 7:30 p. m.

December 2: Staff of Chamberlain-Rice Hospital, Natchez, Staff of Vicksburg Infirmary, 7:30 p. m.; Staff of Rush's Infirmary, Meridian, 7 p. m.; Staff of Dr. F. G. Riley's Children and Maternity Hospital and Clinic, Meridian, 7 p. m.

December 3: Pike County Medical Society, McComb, 7:30 p. m.

December 4: Natchez Medical Club, 1 p. m.

December 7: Jackson County Medical Society, 7:30 p. m.; Staff of Meridian Sanitarium, 7 p. m.; Staff of Jackson County Hospital, 7:30 p. m.

December 8: Joint meeting of the Fifth District Medical Society of Louisiana and the Issaquena-Sharkey-Warren Counties Medical Society, Vicksburg; Staff of Natchez Sanatorium, 7 p. m.; Winston County Medical Fraternity, Louisville.

December 9: Staff of King's Daughters' Hospital, Greenville, 7 p. m.

December 10: Staff of Vicksburg Sanitarium, 6:30 p. m.; Staff of Vicksburg Hospital, 7:30 p. m.

December 11: Staff of Anderson Infirmary, Meridian, 7 p. m.

December 15: Staff of Natchez Charity Hospital, 8 p. m., North East Mississippi Thirteen Counties Medical Society, Tupelo, 2 p. m.

December 17: East Mississippi Medical Society.

December 18: Natchez Medical Club, 1 p. m.

DELTA MEDICAL SOCIETY.

The semi-annual meeting of the Delta Medical Society, presided over by Dr. E. R. Nobles of Rosedale, was held in the auditorium of the Sunflower County Junior College auditorium, Moorhead, on the afternoon of October 14, with a large attendance and a splendid program, which was fully discussed by visitors and members. The scientific program included the following:

1. Meningitis.—Dr. W. P. McDavid, Parchman.

Discussed by Drs. R. C. Bunting, Memphis, Tenn., and J. G. Archer, Greenville.

2. Varicose Ulcers; Rubber Bandage Treatment.—Dr. T. J. Barclay, Isola.

Discussed by Dr. Hugh Gamble, Greenville.

3. What Can We Promise the Asthmatic?—Dr. J. T. Pegues, Greenville.

Discussed by Drs. John C. Culley, Oxford; G. M. Barnes, Belzoni; R. C. Smith, Drew, and Seale Harris, Birmingham, Ala.

4. Vomiting Problems in Children.—Dr. Ralph Bowen, Memphis, Tenn.

Discussed by Dr. R. E. Wilson, Greenville.

5. Hyperinsulinism and Dysinsulinism.—Dr. Seale Harris, Birmingham, Ala.

Discussed by Dr. John C. Culley, Oxford.

The banquet was served by the Junior College girls in the dining room of the Junior College and was presided over by Dean Paul West. He in a gracious and pleasing manner introduced the following speakers: Supt. J. S. Vandever, Dr. P. L. Mull, Dean of the University of Mississippi School of Medicine; Dr. John C. Culley, Oxford, President of the Mississippi State Medical Association; Dr. D. C. Montgomery, Greenville; Dr. E. R. Nobles, Rosedale, retiring President of the Delta Medical Society; Dr. George Baskerville, Greenwood, newly elected President of the Delta Medical Society, and Dr. Seale Harris, Birmingham, Ala. All the after-dinner speeches were interesting and enjoyable. The entire program was considered one of the best that we have had in years. There were about 100 present. The Sunflower College band, the musical department under Mrs. A. M. Applewhite, Mrs. McPherson, and the young ladies of the Junior College, who served the elegant banquet, all contributed to the enjoyment of the occasion.

J. W. Lucas,
Councillor, First District.

DELTA MEDICAL SOCIETY OFFICERS.

At the semi-annual meeting of the Delta Medical Society, held at Moorhead on October 14, officers for the coming year were elected as follows:

President, Dr. George Baskerville, Greenwood.

Vice-Presidents, Drs. J. G. Archer, Greenville; W. A. Carpenter, Cleveland; U. S. Wasson, Moorhead; C. C. Hightower, Itta Bena; G. M. Barnes, Belzoni.

Delegates to Mississippi State Medical Association—Drs. F. M. Acree, Greenville; T. D. Allen, Shaw; W. H. Weeks, Doddsville; L. B. Otken, Greenwood; T. J. Barkley, Isola.

Alternates—Drs. O. P. Thompson, Greenville; J. D. Simmons, Gunnison; W. R. Richardson, Indianola; J. P. Kennedy, Greenwood; J. C. Higdon, Belzoni.

R. C. Finlay, Secretary.

VICKSBURG HOSPITAL.

The regular monthly meeting of the staff of the Vicksburg Hospital was held on October 8, and was called to order by the President, Dr. G. P. Sanderson, at 7:45 p. m. Drs. I. C. Knox, W. H.

Parsons, W. E. Akin, and W. E. Weston were present.

The minutes of the preceding meeting were read and adopted without change. Analysis of the work done in the hospital during the past month, roentgen-ray report, laboratory report, medical and surgical reports were read. The reports were discussed freely. There were four surgical deaths and one infection.

The scientific program was presented as previously outlined with the exception of the paper on endocervicitis, which will be presented at the next meeting.

It was moved and carried that in the future the meeting would begin promptly at 6:30 p. m., even though as few as two members be present. The filing system according to the etiological classification of cases will be discussed at the next meeting.

Refreshments were served and the meeting adjourned.

VICKSBURG SANITARIUM.

The regular monthly meeting of the staff of the Vicksburg Sanitarium was held on October 10, with ten members and three visitors present. After transaction of the business of the staff and a consideration of the reports of the records department and analysis of the work of the hospital, the following special case reports were presented:

1. Hemolytic Streptococcus Gangrene.—Dr. A. Street.
2. Repair of Median Nerve Following Injury.—Dr. J. A. K. Birchett, Jr.
3. Spontaneous Pneumothorax.—Dr. L. J. Clark.

Brief reports on the literature of the month were made as follows:

1. Dr. J. A. K. Birchett, Jr.: Pancreatic juice in gallbladder disease; Salivary gland stones; Malignancy in benign giant cell tumors of bone; Roentgen-ray diagnosis of lesions of the breast; Asheim-Zondek pregnancy test.
2. Dr. L. J. Clark: Electrocardiography; Myxoedema and heart disease; Syphilitic Aortitis; Portal sclerosis.
3. Dr. L. S. Lippincott: Prognosis in cancer; Asheim-Zondek pregnancy test.
4. Dr. G. C. Jarratt: Encephalography in children.

Selected radiographic studies were demonstrated: Enlarged thymus; Pulmonary tuberculosis (2

cases); Fracture of skull; Pott's disease of thoracic spine; Duodenal ulcer; Urinary calculi (3 cases).

Dr. Walter E. Johnston was elected to membership on the staff.

The meeting closed with a lunch.

AN EDITOR TALKS.

(Continued from last month)

(From the Preparation of Papers on Medical Subjects: How to Make Them Interesting as Well as Instructive.—The Editor Talks, by Dr. George L. Richards, Fall River, Mass.)

"If you are reading the paper get the attention of the last person in the audience; be sure he hears you and be sure you interest him. If you hold his attention you have captured all the rest on the way. Never have the word 'louder' come to you but once.

"Where possible, case reports should be summarized. It is not necessary to give the minutiae of each individual case unless that minutiae is essential to its proper understanding. Most of the family history can be omitted whereas the previous history may be very important.

"Give only the essentials of the daily clinical history. Too many times a case report reads like a transcript of the hospital record. Where there is an autopsy report only what is relevant. Organs not mentioned may be assumed to be negative or it may be stated 'other organs normal.'

"Do not use the word 'she' or 'he' and in the next sentence 'the patient,' alternating between these terms, as often occurs in many manuscripts. In a case history, once having given the sex and age, assume that the person about whom you are writing continues to be the patient.

"I do not think it is good form to state that it is case No. 20,212 that you are reporting or that it was referred through the kindness of Dr. J. or H. When reporting a consultant's opinion state the essential facts and not of necessity his complete statement. It is not always necessary to give temperature, pulse and respiration for each day of the report, nor, if a chart is reproduced, is it essential to give normal temperature for the convalescent period. The simple statement that from that time on the temperature was normal suffices.

BIBLIOGRAPHY.

"I approach this subject with some fear that I may be misunderstood. Bibliographies are useful when they are distinctly referred to in the text and have some direct bearing on the subject, but

when they are unduly long and have evidently been made by some energetic secretary who has culled from a medical library about all the references to be found on the subject, they appear to me to be somewhat superfluous.

"This is especially the case when many of the references are foreign and are presented with the names of the journals badly spelled and with no uniformity in the abbreviations used.

"One year we published a paper of 6½ pages which had 65 references in the bibliography. In this instance it was a report of four cases, and the references were all referred to in the text. Except, however, in the largest kind of a medical library it would have been impossible to verify these references. Fortunately they were correct as to spelling. That kind of a bibliography, even if long, is permissible and may be very useful to one looking up the subject.

"On the other hand, in 1905 we published an article with 251 bibliographic references, none of which were specifically referred to in the text. These references may all have been valuable, but such a long list suggests padding and an attempt to show erudition and familiarity with the literature."

(To be continued)

ISSAQUENA-SHARKEY-WARREN COUNTIES MEDICAL SOCIETY.

The regular monthly meeting of the Issaquena-Sharkey-Warren Counties Medical Society was held at the Y. M. C. A., Vicksburg on October 13, with 24 members and two visitors present. The scientific program included:

1. Meckel's Diverticulum—Its Significance and Complications (With Case Reports).—Dr. J. A. K. Birchett, Jr.

Discussed by Drs. A. Street, G. M. Street, H. H. Haralson, E. F. Howard, and L. J. Clark. Dr. Birchett closed.

2. The Treatment of Pneumonia in the Country.—Dr. G. W. Gaines.

Discussed by Drs. W. C. Pool, E. F. Howard, W. G. Weston, R. H. Foster, S. W. Johnston, L. S. Lippincott, A. Street, W. H. Scudder, and W. E. Johnston. Dr. Gaines closed.

3. The Treatment of Malaria.—Dr. W. C. Pool.

Discussed by Drs. R. H. Foster, G. W. Gaines, G. C. Jarratt, L. J. Clark, J. B. Benton, W. H. Scudder, F. M. Smith. Dr. Pool closed.

4. Intussusception.—Dr. S. W. Johnston.

Discussed by Drs. G. C. Jarratt and N. D. Lewis. Dr. Johnston closed.

Dr. F. Michael Smith briefly discussed the recent meeting of the American Public Health Association.

The next meeting of the Society will be held Tuesday, November 10. The committee in charge of program consists of Drs. G. C. Jarratt, Chairman, D. A. Pettit, M. J. Few, J. A. K. Birchett, W. E. Akin, Jr., B. B. Martin, M. H. Bell, W. H. Scudder, R. H. Foster, and W. E. Johnston.

COMMUNITY HOSPITALS.

"Mr. W. Hamilton Crawford,
"Hattiesburg, Miss.

"Dear Mr. Crawford:

"Your letter of May 18th, was received this morning.

"I agree with you that with the active co-operation of all the hospitals in the State the Mississippi Hospital Association should soon hold a very prominent place in the direction of health activities in our State.

"Personally I am of the opinion that it will be necessary to arouse the enthusiasm of all of the hospitals of the State and to inculcate in them a keener desire for a higher standard of hospital work than one sees manifested in such a large proportion of those that one visits. The fact that only 20 or 25 per cent of the hospitals of the State have qualified under the Minimum Standard of Requirements is to my mind a serious reflection upon the standards under which they are operating.

"Some have been very much enthused for the last two or three years over the subject of the community hospital and particularly State aid for them. There is no question but that State aid theoretically would be very desirable for local institutions for several reasons. However, there are a number of features which are decidedly to its disadvantage. First amongst which is that heretofore several of the smaller hospitals have been practically maintained by State aid. Secondly, there are many of them whose equipment is not of such nature as would qualify one to make a thorough examination with it. Thirdly, State aid to those insufficiently equipped institutions would inevitably tend to cause an increase in unnecessary surgery, and its concomitant associate poor surgery.

"There seems to be in some quarters a belief that all any registered physician needs to become a successful suregon is a place in which to operate. Men who have not had to go through the mill of preparation do not realize that surgical judgment, skill, diagnosis, and operating technique

are the result as a rule of years of application and training. The public would suffer the most, but the medical profession as a whole would receive a set back of considerable magnitude, particularly along surgical lines.

"It is not good policy, if one has to be politic to tell physicians that they are not prepared for certain kinds of work, nevertheless, if higher standards are to be maintained it is essential that the lesson be brought home to all that the individual physician should have a certain amount of clinical experience and training, before he is justified in jeopardizing the lives of his patients through inexperience along surgical lines.

"There should be developed in the hospitals a realization that their greatest good can only be accomplished when they have developed a conscience which puts service above everything else, and which will cause them to insist upon thorough equipment, and that those who use their facilities should have thoroughly prepared themselves so that they can render the highest type of service.

"I trust that you will pardon the length of this letter but from my observation of the hospital facilities of many of the hospitals of the State, and the manner in which these hospitals are conducted, I cannot but feel that the standards of medical and surgical practice will be lowered, if these low grade hospitals are not in some way brought up to a higher standard.

"With kindest regards, and wishing for the Mississippi Hospital Association every success, I am as ever

"Sincerely yours,
(Signed) H. A. Gamble.

SECTION CHAIRMEN.

President J. C. Culley, Oxford of the Mississippi State Medical Association called a special meeting of the chairmen of all sections for Monday, October 5, at 7 p. m., at the Robert E. Lee Hotel in Jackson. Those present were Dr. Culley, Dr. T. M. Dye, Secretary of the State Association; Dr. W. H. Anderson, Booneville, Chairman of the Surgical Section; Dr. G. W. F. Rembert, Jackson, Chairman of the Medical Section. Dr. George E. Adkins, Jackson, Chairman of the Radiological Section; Dr. F. M. Smith, Vicksburg, Chairman of the Public Health Section and Dr. Edley H. Jones, Vicksburg, Chairman of the Eye, Ear, Nose & Throat Section. Dr. E. P. Mull, Dean of the University of Mississippi School of Medicine, was also present. All were guests of Dr. Culley at an excellent dinner, following which business pertaining to the next Association meeting was discussed. The program was tentatively arranged and all chairmen were requested to have their complete

programs in the hands of the Secretary not later than April 1, 1932. After the meeting Drs. Culley and Mull left for Natchez to attend a meeting of the Eighth Councilor's District Medical Society.

WARREN COUNTY.

Drs. E. F. Howard and S. W. Johnston, Vicksburg attended the meeting of the Constitution and By-Laws Committee of the Mississippi State Medical Association in Natchez on Tuesday, October 6.

Dr. Edley H. Jones attended the convocation of the American College of Surgeons in New York City. The degree of Fellow was conferred upon him Friday, October 16.

Dr. J. A. K. Birchett, Jr., attended the Annual Meeting of the Postgraduate Assembly at Milwaukee.

E. H. Jones, County Editor.

NESHOBA COUNTY.

The map sent me by Dr. L. S. Lippincott shows the County reporters to be very delinquent. Let us agree to do better.

My excuse for not reporting—two months ago I fell and fractured three ribs, and as soon as I began to recover, I was laid up in bed ten days with a severe case of flu from which I am merely convalescing.

Dr. Charlie Harrison who has been to Memphis and Jackson for examination, found his trouble to be sinusitis. He was operated upon in Jackson. His condition is considerably improved.

Too, the report is that Dr. Harrison went fishing and caught an eight-pound trout. I am wondering just how big the fish would have been had he been well.

Mrs. W. H. Banks who has been quite ill is also recovering.

Dr. W. R. Hand and family made a pleasure trip to Quitman as guests of his son, Dr. Granville Hand.

The last issue of the Journal is warning us against the fellow who is going over the county purporting to be Dr. H. N. Mays of New Albany. This fellow has worked our district, too. He has now reduced his calls as low as \$10.00.

J. S. Hickman, County Editor.

COPIAH COUNTY.

Dr. J. M. Dampeer of Crystal Springs, one of Mississippi's most beloved physicians, has been confined to his home most of the time during the past six months. We are pleased to state that

he is better now and all hope for a rapid convalescence.

W. L. Little, County Editor.

PONTOTOC COUNTY.

A Maternal Hygiene Institute for physicians was held last week at Houston, by Dr. J. R. McCord of Emory University, who gave five excellent lectures. They were well attended and enjoyed by physicians from several adjoining counties. Those who attended from Pontotoc county were: Dr. E. G. Abernethy, Dr. W. R. Card, Dr. O. F. Carr, Dr. R. P. Donaldson, Dr. Z. A. Dorsey, Dr. D. T. Dempsey and Dr. W. H. Reid.

We're glad to report that Dr. J. W. Turner of Pontotoc is able to be out again after a two weeks' illness.

It is distressingly healthy here for the time of year. Still having a few cases of diphtheria scattered around over the county.

The Ecru High School, which has been closed for two weeks on account of diphtheria, opened again last Monday morning.

Mack Donaldson is the name of the youngster who arrived in the home of Mr. and Mrs. Mack Secord of Montgomery, Ala., September 24. Mrs. Secord was before her marriage Gladys Donaldson, daughter of Dr. R. P. Donaldson.

R. P. Donaldson, County Editor.

PIKE COUNTY MEDICAL SOCIETY.

The Pike County Medical Society met at the McColgan Hotel, McComb, Thursday, October 1, at 7 p. m.

Program: Endocarditis.—Dr. G. W. Robertson.

The Menace of Psychiatry.—Dr. Elise Rutledge.

The following members were present: L. J. Rutledge, W. M. Biggs, M. D. Ratcliff, G. W. Robertson, E. M. Givens, T. E. Hewitt, B. J. Hewitt, S. Paul Klotz, Thomas Purser, L. W. Prock, J. E. Brumfield, R. H. Brumfield.

Drs. J. E. Hewitt and A. J. Fortinberry who have recently located in Summit and McComb, respectively, were elected members of the Society.

Robert H. Brumfield, Secretary.

WEBSTER COUNTY.

The Winona District Medical Society met at Eupora, October 6, with 29 physicians present. A splendid program was given. The Society will hold its next meeting in Kosciusko in January, 1932.

Hugh K. Curry, son of Dr. and Mrs. W. H. Curry, Eupora, entered the university of Tennes-

see in September to take up the study of medicine.

Dr. W. A. Berryhill, Eupora, has just returned from a six weeks' visit with his son in the Rio Grande Valley. He looks almost like he had found the "fountain of youth."

W. H. Curry, County Editor.

COUNCILOR APPOINTMENT.

Please announce in the Journal that President Culley has appointed Dr. H. Lowry Rush of Meridian as Councilor for the Sixth District to succeed Dr. W. G. Gill, deceased.

T. M. Dye, Secretary.

THE INSURANCE SITUATION.

Dear Mr. Editor:

The Tate County letter in the October Journal alludes to a matter regarding our life insurance feature that apparently needs some investigation. There are no printed records available, but if my recollection is correct it was in 1928 that the Council advised and the House of Delegates authorized a contract between the Association and the American National Insurance Company of Galveston, Texas, under the terms of which those members of the Association who wished to do so could purchase, at a low rate and without examination group insurance to the amount of three thousand dollars each.

Apparently in 1929 this contract was modified to increase the amounts of the individual purchasers to six thousand dollars, though again there is no record of such authorization.

In 1930 the Council passed and the House approved a new contract as follows:

"Be it resolved that the duly elected House of Delegates of the Mississippi State Medical Association in convention assembled in the City of Vicksburg, Mississippi on this the fifteenth (15th) of May, Nineteen Hundred and Thirty, does hereby authorize, instruct and empower T. M. Dye (Secretary of said Association) as follows:

"That on August 1st, 1930, when the Third Annual Premiums of the various members of the Mississippi State Medical Association on certain group Life Insurance Certificates now held in the American National Insurance Company of Galveston, Texas, fall due, all of these certificates are to be renewed on the same basis as they are now carried by the American National Insurance Company (italics mine) with the All States Life Insurance Company of Montgomery, Alabama."

This was done, but apparently the All States repented of its bargain, because last spring it notified the holders of the certificates that the

contract, which would expire August 1, 1931, would not be renewed, offering instead to the holders of certificates a different form of policy—a five-year term, non-participating, but without increase in premium from year to year. *An examination was essential.*

I was offered one of these for an annual premium of \$74.43 plus a bonus of \$9.99, the bonus to secure me the rate of fifty-six years of age instead of fifty-seven. I paid the bonus, but did not accept the policy because I had learned in the meantime, that I could get the same policy for the same money, without any bonus, from a company right here in Mississippi. So I asked that my bonus be returned. It was not, but I took the Mississippi policy.

Now I learn from Dr. Eason's letter, and others have been similarly advised, that men have to resign from the Association in order to get these policies. I do not understand the situation at all, except that the resignation is only temporary, but it strikes one as a bit remarkable that the Council, if it was the Council that did it, for again there are no records of the transaction, should enter into a contract that calls for even temporary withdrawal from the Association. If one withdraws, resigns, from one's County Society and the Association and then goes back, one pays, or should pay, one's dues a second time. In my case this would amount to nine dollars. Add the bonus I was to pay, practically nineteen dollars. For what? For a policy that I can duplicate without any bonus or any resignation. Yes, I can, I have it here on my desk.

And suppose that during the time I am out of the Association I am sued for malpractice. What happens? I would hardly have the nerve to ask the Council to defend me.

There is probably some explanation for all this, and probably it is so simple that even a moron like myself can understand it. But as there are others besides myself, Dr. Eason being one, who are completely bewildered, may we ask that we be given the explanation and, at the same time, that we be told who authorized the change in the contract and where we can find a record of that authorization.

Yours very truly,

E. F. Howard.

Vicksburg, Mississippi.

October 6, 1931.

THE HISTORY.

The work of collecting material for the History necessarily progresses slowly but the results have exceeded my expectation. For the most part,

those I have called on for assistance have responded promptly and their help has been very effective. My thanks are due them all, but I am particularly grateful to the Secretary of the Northeast Mississippi Thirteen County Society, Dr. J. M. Acker, who has very materially lessened my labors.

One part of the History is to be devoted to brief biographies of former presidents—each to be illustrated by a photograph taken as nearly as possible to the time when the subject was president. This department is the most difficult to complete as many of the men are dead—and some of the others seem to be. The list of wants is appended in the hope that some of the members may be able to supply them.

E. F. Howard, Historian.

Personal Records Needed For the History:

- W. F. Hyer, Meridian—1880-81—photograph.
- B. F. Ward, Winona—1881-82—photograph.
- J. M. Greene, Aberdeen—1883-84—photograph.
- J. B. Gresham, West Point—1885-86—photograph.
- R. E. Toombs, Greenville—1886-87—photograph.
- N. L. Guice, Meridian—1887-88—photograph.
- J. E. Halbert, Mound Landing—1889-90—photograph.
- W. M. Pain, Aberdeen—1897-98—photograph.
- H. A. Minor, Macon—1900-1—photograph and biography from 1910.
- T. J. Mitchell, Jackson—1904-5—photograph.
- W. W. Crawford, Hattiesburg—1906-7—photograph and biography from 1907.
- J. W. Gray, Clarksdale—1908-9—photograph and biography from 1910.
- D. J. Williams, Ellisville—1911-12—photograph and complete biography.
- S. W. Glass, Dublin—1912-13—photograph and complete biography.
- J. W. Barksdale, Winona—1920-1—photograph and complete biography.
- W. A. Dearman, Gulfport—1923-24—photograph and complete biography.
- John Darrington, Yazoo City—1927-28—photograph and complete biography.
- W. H. Frizell, Brookhaven—1928-29—photograph and complete biography.
- H. A. Gamble, Greenville—1929-30—photograph and complete biography.

OCTIBBEHA COUNTY.

Enclosed is self-explanatory and this is the only thing done by any of the local doctors that they would care to have published. Dr. J. F. Eckford is the son of Dr. J. W. Eckford, and a

graduate of Mississippi A. & M. College and Tulane University.

Mr. and Mrs. Dean Carleto Holmes
request the honor of your presence
at the marriage of their daughter
Nellie R.

to

Dr. John Featherston Eckford
on Wednesday evening, the seventh of October
Nineteen hundred and thirty-one

At eight o'clock

Centenary Methodist Church

McComb, Mississippi

H. L. Seales, County Editor.

MONROE COUNTY.

Cheap cotton, hard times and hot weather—can you beat it? On the other hand the fields are full of yellowing corn; potato patches are groaning in travail as the rows swell and crack and split; muscadines are dropping from the burdened vines and they say the lazy catfish are beginning to bite. Soon, "the frost will be on the pumpkin and the corn pone will be hot." Already the air is laden with the aroma of sorghum as it is evaporated in the cooking pan. If it were not for the thought of notes soon to fall due with interest on the same together with taxes too heavy to be met, life might be too much like an idyllic dream.

The Thirteen County Society held its third quarterly meeting in Columbus recently. You should have been there. It was a great meeting of a great society. The program was good, the interest was fine, and the fellowship and good cheer were wonderful. It is true the attendance was not as full as all had wished and as I had expected. But when we looked for a reason for the rather small attendance we discovered that an enterprising reporter had given out the misleading information that the meeting was held the day previous. This report kept our friends from Memphis and elsewhere, who always attend our meetings, away. It, no doubt, kept some of our own membership from going. Just before leaving for home, I was told by some one that Dr. Fite, Dr. Stalworth and other members of the entertainment committee had instigated this report for fear that "everybody" might be there as they were at Houlika. However, it was not that they were not willing to entertain everybody but because, in Columbus, they have no open spaces and wooded lawns in which to spread great feasts as they do in Dr. Walker's wonderful little town. Altho they are so sadly handicapped by city environment, Columbus lived up to her well deserved repute of hospitality. A most delightful banquet was served in the patio of that historical

old hostelry, the Gilmer Hotel. No one who was there will forget or regret the fact.

The North Mississippi Medical Society, remembering their visit with us recently, extended to us an invitation to meet with them at the University on October 29. Their program will be rich and great; for only great men will have a part on this program. Among these men are W. S. Leathers, James S. McLester, McElroy of Memphis, Roberts of Atlanta and the great Matas of New Orleans. What a treat awaits those who may be able to go. Organized medicine in North Mississippi "holds high the torch." We love our profession, we love each other and are determined to do so until the end. We can not love those whom we do not know. It is so easy to love those whom we do know. There is no place where it is so easy to know each other as it is in the ranks of an interested membership of a small medical society.

The next and last meeting of our society for the year will be held in Tupelo on Tuesday, December 15.

I omitted the statement that Dr. Seale Harris, Sr., of Birmingham, was with us at Columbus. He frequently meets with us and is always welcome. Dr. Underwood is still one of us; he too, was there.

Aurevoir, but not farewell.

G. S. Bryan, County Editor.

HOSPITALS.

In speaking of hospitals in this paper I am dealing particularly with hospitals in the Commonwealth of Mississippi, and in doing so it is my earnest hope that I may say something which will stimulate healthy, progressive thought and action toward improvement in efficiency and co-operation, both in hospital service and medical education, to the end that the person in need of such service may be the beneficiary.

Hospitals may be considered as the workshop or laboratory of the physician and the nurse for the treatment of the sick and disabled. In an institution worthy of the name hospital, there are many supplementary aids to the physician and nurse; and, consequently, it would seem to even the uninitiated that the sick can receive more rational aid in his quest for health in an institution of this kind that he could in a place where these necessary aids could not be employed. Hence, it may be easily seen, even by the unwary, that there is a logical and a legitimate reason for the constant and continuous effort on the part of the medical profession, and hospital administrators, to improve hospital and medical service.

Mississippi medicine is beginning to catch the halo of a vision in the hospital field; and the vision is becoming clearer that, if organized medicine in the State of Mississippi is to gain its rightful sphere and give the service that is rightfully expected, it must become hospital conscious and enlist the aid of every legitimate source in bringing about a hospital condition so that every person within the confines of the State may avail themselves of the proper medical and hospital care when in need of such services. There has been great strides made in the last few years; but there remains much to be done, much that can be done, and much that will be done in the way of improvement of this very worthy and needed cause.

It may be said, and I think the contention is correct, that the State owes a duty to its indigent sick; but just how that obligation is to be met is a subject of controversy in the minds of some; and it can easily be seen that, before a definite, sane, sensible, and equitable plan can be worked out, before a definite plan of action can be decided upon with any degree of expectation of results, the medical profession must come to a mutual agreement.

The State has for several years maintained five charity hospitals in its southern end. These hospitals, considering the doles handed them for maintenance, have done much good to the sections which they serve; but, even so, there is still much improvement which can be accomplished with honest effort, on the small appropriations they get. The efforts put forth toward making state maintained hospitals, teaching institutions, is well worth the price in bringing about higher standards of service to the patients and more competent physicians and surgeons, who will go out to better serve the people of the Commonwealth in the different communities in which they may choose to locate.

Political manipulations should have no place in an institution for the treatment of the sick. In my judgment, this is the chief cause for lack of any efficiency, past, present, or future, which may have resulted in our state hospitals. A genuine fraternal interest manifested on the part of the medical profession as a whole will prevent any such tragedies, and that to the eternal good of the public and the profession. Hospitals should not be made political footballs, but rather institutions for the genuine care of the man down flat on his back, the man who needs help, and not the professional political papsucker. The hospitals should be taken out of politics as far as is humanely possible. If I may be allowed to suggest, I would say that one plan of correcting this evil would be for the entire hospital per-

sonnel to be under direct control of the hospital administrator—he to be responsible to a board of directors named by the Governor, the executive member of the State Board of Health, and the President of the State Medical Association; the board to be composed of not more than five members, and not more than one member from a county; the Governor to name two members, the president of the State Medical Association, two members, and the executive member of the State Board of Health to name one member; and the board in turn to name their officers.

I want to digress enough to say that the medical profession of Natchez, the city in which the hospital of which I am superintendent is located, has cooperated with me to the fullest extent, and I shall always feel grateful to them.

The subject of community hospitals for the past year or two has held an interesting place in medical discussions, it being held by the proponents of the plan that you carry adequate medical, hospital, and nursing service to the door of the people—a plan which, in my judgment, if properly worked out, will be of much merit to both the public and the profession. However, I doubt the wisdom at this time of bringing about the dissolution of the present state hospitals in order to try out merely an idealistic plan, which at this time has not been worked out on an equitable basis; but I do think that in the northern portion of the State, where the State hospitals are not accessible, a plan of community hospital support should be given by the State. A committee has been appointed by the State Hospital Association to work out and present a plan; and I have faith enough in the committee to believe they will work out a feasible and equitable plan. Of course, it is very evident to all that such a plan must of necessity be properly safeguarded, or the purpose for which it is intended would be defeated. The honor and integrity of the medical profession would be put on trial, and I think it would stand the test. In other words, I think that the medical profession could be depended upon to handle the problem fairly, justly, and equitably. In my opinion, the establishment of an equitable and comprehensive community hospital program would unquestionably solve the question of State medicine by carrying adequate and scientific medicine to an easy access to all the people and at a great saving in cost as a whole. The community hospital would serve also as an educational center for all the doctors within the radius which the hospital serves. Thus, by constant contact with the best medical minds, the standard of service will be raised, and the public will be benefitted thereby.

To my mind, there is another hospital situation in Mississippi, which offers wonderful possibilities in the way of medical education and which would only cost a little effort and cooperation to put into effect. I am thinking of the State Insane Hospital and the State Charity Hospital in Jackson. If an arrangement of coordination and cooperation could be put into effect, the State could offer an excellent internship to the young doctors of the State, who now have to go to other States for their accredited interne training. The greatest effort would be the organization of a workable staff and the keeping of a comprehensible record. Little thought has possibly been given to this phase of the hospital situation, but the possibilities of such an arrangement both from the standpoint of medical education and the care of the patients at once suggests itself. Let Mississippi avail itself of its medical opportunities.

This paper was written at the request of Dr. Leon S. Lippincott, president, and Dr. C. M. Speck, secretary of the State Hospital Association.

Supplement:

As a supplement to the paragraph on community hospitals, I would say that if properly conducted, they will add greatly to the status quo of the general practitioner of medicine, who is still the bulwark, the superstructure, upon which the whole structure of medicine securely rests, and must depend for its very existence. Destroy the general practitioner, and organized medicine will result in crumbling decay. The general practitioner of medicine, is the greatest specialist of them all, because it is he that in addition to scientific medicine, must understand the human fancies and foibles, the actions and reactions, the impulses and emotions, in order that he may be able to successfully treat their ailments. I repeat that the general practitioner is the greatest specialist of them all, and his status must be preserved or organized medicine will result in crumbling decay.

J. A. Rayburn, Natchez.

THE DOCTOR'S SIDE OF THE QUESTION.

The following letter by Dr. L. S. Gaudet, Natchez, should be read by every doctor in Mississippi. It should be given their most careful consideration. The physicians' altruism has for so long been taken for granted by the laity that they have come to make demands of the physician such as they would never dream of making of any one else.

In times of disaster the Red Cross not only pays for its supplies, but it pays its "volunteer" lay workers. Lecturers and welfare workers are

all remunerated for their services but the doctor is expected to give his services gratis. In addition, when the annual drive for funds is on he is expected to give of his money as liberally as any. Nothing is ever said of crediting him for the services rendered.

It has been stated that the cost of illness to the great middle class may be reduced by the community hospital. Most physicians can testify to the fact that the cost of illness usually amounts in proportion to the demands of the patient and his family. Many patients want special nursing longer than is necessary and many want other expensive luxuries. After the hospital bill and nursing bill has been taken care of, the patient frequently has nothing left for the doctor. The doctor has made much of being a friend to the patient, but he pays dearly for this privilege. When a man needs a lawyer, he knows that he cannot expect the lawyer to act until he has prevailed on his relatives and friends to put up the cash. But in the case of illness the relatives see no wrong in asking the doctor, often a stranger, to carry the burden.

The Committee and Community Hospitals should see to it that the staff is not asked to do too much charity work. We now have commissions to regulate our prescribing, and if the State puts up any great amount of money for the care of hospitals it is obvious that there will be an agency to control the expenditure of these funds. This agency will not be concerned in keeping down the number of charity patients. Here we may have State controls, even more than at present in our hospitals.

The physician will always have to do charity, but his free work should not be allowed to increase his overhead expenses. Caring for his friends without adequate remuneration is a luxury that few Mississippi doctors can afford.

J. S. Ullman, Natchez.

At the meeting of the Eighth Councillor's District Medical Association, held in Natchez a few days ago, Dr. John C. Culley, president of the Mississippi State Medical Association, in his discourse on the Community Hospital, made the statement that he had operated on 20 cases of appendicitis in his hospital, and received the sum of \$50.00 for these 20 cases.

This is a most astounding statement to me, and should make a deep impression on those who were present.

Some few months ago, I read a statement, how authentic I am not in position to state, that the

medical profession in the United States donated in 1930 the sum of \$185,000,000, or about half a million a day in free service. This, if true, is really astounding, and is a problem of serious consideration.

Dr. Culley suggests a reduction in fees. He feels that surgeons over-charge in their work. May I ask him if surgeons charges today are not proportionate to the other items of the cost of living?

Dr. Rappleye of New Haven, Conn., in a discussion of medical economics in the Journal of the A. M. A., shows that the per capita per family sums up as follows: Patent medicines and drugs, \$25.00; physicians, \$24.00; hospitals, \$15.00; nurses, \$8.00; dentists, \$6.00; automobiles, \$150.00; tobacco, \$67.00; candy, \$37.00; gasoline, \$37.00; entertainment, \$35.00; soft drinks, ice cream, \$34.00; and so on.

The question that arises in my mind, is not the health of any individual more important than his pleasures? Without health, pleasures or nothing else would be of any value.

The average case of appendix operation, surely ought to be worth \$100.00 to the patient and to the surgeon. When compared to other expenditures, I should feel such a fee would be reasonable; still Dr. Culley received \$2.50 per case for his services.

What is wrong? Something must be wrong somehow and some where. As altruistic as the medical profession may be, these men and women who constitute it must live and support their families, just as any other profession or trade must do. Where do you find any other business or profession giving away one-half million dollars a day in free services. None I can find.

The cost of medical education, the length of time, the cost of practicing has increased enormously, and still we are making no progress on the economic side of medicine.

Something is wrong, and we are, ourselves, the guilty parties. We must put our house in order. Our standard of medical ethics and economics must be made to fit a modern world, a modern people, modern transportation and so on down the line, if we expect to continue to move forward and progress as we should; or we cannot continue to carry on the high standard of services, under such conditions.

The average earnings of doctors in the United States are about \$650.00 and if such is true, it behooves the medical profession to think seriously of the future.

Lucien S. Gaudet, Natchez.

FROM DARKNESS TO LIGHT.

The following counties dark so far as their county editors were concerned last month, become white in this issue: Amite, Choctaw, Copiah, Monroe, Neshoba, Oktibbeha, Pike, Prentiss, Sharkey, Webster, Wilkinson, Winston.

ADAMS COUNTY.

Dr. Edwin E. Benoist, accompanied by his father, L. A. Benoist, attended the twenty-first Annual Clinical Congress of the American College of Surgeons at New York. Dr. Benoist received the fellowship degree at this congress.

Miss Allene Dicks recently left for Waterproof, where she joined Miss Watson and her niece Miss Miriam Watson. Together they motored as far as Birmingham. Misses Dicks and Watson continued their trip east by rail. Miss Dicks will enter Columbia University to study for her M. A. degree and Miss Watson will be a member of the school faculty at Mount Vernon, New York.

Miss Cora Garrison, a recent graduate nurse of the Natchez Sanatorium, is now pleasantly located in the home of the Misses Bahin in Main street.

Miss Audrey Quirn of Brookhaven, was a recent house guest in the home of Dr. and Mrs. J. W. Chisolm.

Mrs. W. C. Pool of Cary, was a guest in Natchez on October 7, while attending the annual meeting of the Eighth Councillor's District Medical Society.

Dr. and Mrs. J. W. D. Dicks and son, Mr. George Dicks, left on October 13 for Nashville, Tenn., where Mr. Dicks will enter Vanderbilt University. Dr. and Mrs. Dicks went from Nashville to Old Hickory, Tenn., for a visit to their son-in-law and daughter, Mr. and Mrs. Lyman Darling.

Mrs. Ethel Marsh had the honor of receiving one of the two scholarships given by the Commonwealth Fund to attend the Western Reserve University in Cleveland, Ohio. Mrs. Marsh will take a four months' course in public health work.

Mrs. Nita Beer who has been visiting for the summer with her brother-in-law and sister, Dr. and Mrs. Philip Beekman, has returned to New Orleans.

Dr. Alphonse Meyer of Memphis, who attended the Eighth Councillor's District Medical Society at Natchez on October 6 was warmly welcomed by a large circle of old friends in Natchez, the former home of the family.

WOMEN'S AUXILIARY.

The organization of the Women's Auxiliary of the Homochitto Valley Medical Society was perfected on October 7 at a meeting in Natchez. The following officers were elected:

President, Mrs. C. E. Mullens, Bude.

Vice-president, Mrs. L. S. Gaudet, Natchez.

Second Vice-president, Mrs. W. K. Stowers, Natchez.

Secretary and Treasurer, Mrs. J. C. McGehee, Bude.

The meeting was called to order with Mrs. R. D. Sessions, Natchez, acting as temporary chairman. Dr. Loren Wallin, director, Adams County Health Department, addressed the ladies in behalf of the Homochitto Valley Medical Society and urged the wives of the physicians to organize.

Mrs. W. C. Pool, Cary, second vice-president of the Women's Auxiliary of the Mississippi State Medical Association, spoke on the work of the State Auxiliary and of the assistance given by it to the State Tuberculosis Association.

Dr. John C. Culley, Oxford, president of the Mississippi State Medical Association, urged the wives of physicians to encourage their husbands to take an active interest in the State Association and the fight on State medicine. He pointed out the difficult position that the physician occupies before the public. "Everyone thinks the doctor is the richest man in the community, and he is the first one they seek out when they wish to borrow money. It does not occur to them that the physician has difficulty in collecting his bills, and that if he is not willing to respond to all demands for his services, the public is ready to condemn him."

Charter members of the Auxiliary include Mrs. R. W. Brumfield, Gloster; Mrs. W. K. Stowers, Natchez; Mrs. W. H. H. Lewis, Fayette; Mrs. R. D. Sessions, Natchez; Mrs. Marcus Beekman, Natchez; Mrs. L. S. Gaudet, Natchez; Mrs. L. Wallin, Natchez; Mrs. W. H. Aikman, Natchez; Mrs. A. J. Kisner, Natchez; Mrs. J. A. Rayburn, Natchez; Mrs. Philip Beekman, Natchez; Mrs. J. S. Chisolm, Natchez; Mrs. Raymond Smith, Natchez; Mrs. C. E. Mullens, Bude.

EIGHTH COUNCILOR'S DISTRICT.

The second annual meeting of the Eighth Councilor's District Medical Society was held in Natchez on October 7. The Pike County Medical Society, the Tri-County Medical Society, and the Homochitto Valley Medical Society were all well represented and many of the members brought

their wives with them to attend the organization of the Women's Auxiliary of the Homochitto Valley Medical Society. The program opened with a dinner in the roof garden, Eola Hotel, at noon. Following this the program included:

A Word of Welcome.—Honorable S. B. Laub, Mayor of Natchez.

Response.—Dr. W. H. Frizell, Brookhaven.

Address.—Dr. J. W. D. Dicks, Natchez, Councilor of the Eighth District.

The Community Hospital.—Dr. John C. Culley, Oxford, President of the Mississippi State Medical Association.

Medical Education in Mississippi.—Dr. P. L. Mull, University, Dean of the University of Mississippi Medical School.

The Surgical Significance of Splenomegaly.—Dr. Isadore Cohn, New Orleans, La.

Constitutional Symptoms of Gynecological Origin and Treatment of Causative Conditions.—Dr. Thomas B. Sellers, New Orleans, La.

A Case of Bow Legs (moving pictures).—Dr. Alphonse G. Meyer, Memphis, Tenn.

The officers of the Society are Dr. J. W. D. Dicks, Natchez, president, and Dr. Lucien S. Gaudet, Natchez, secretary. The committee in charge was made up of the following: From Pike County Medical Society, Dr. I. E. Stennis, McComb and Dr. R. H. Brumfield, McComb; from the Tri-County Medical Society, Dr. F. E. Collins, Brookhaven and Dr. O. N. Arrington, Brookhaven; from the Homochitto Valley Medical Society, Dr. Lucien S. Gaudet, Natchez, and Dr. William K. Stowers, Natchez.

Among the guests of the Society at this meeting were Past Presidents of the Mississippi State Medical Association, Drs. E. F. Howard and S. W. Johnston, both of Vicksburg.

L. Wallin, County Editor.

KING'S DAUGHTERS' HOSPITAL, GULFPORT.

Dr. E. C. Parker attended the meeting of the American College of Surgeons in New York, October 12-17.

Dr. C. A. McWilliams attended the convention of the American Academy of Ophthalmology and Otolaryngology at French Lick Springs, Indiana, September 14-18.

Dr. E. D. Gay, Gulfport, married Mrs. Lorine Badgley Brown at Salt Lake City, Utah, on September 27. Dr. Gay will locate in Gulfport.

The Harrison-Stone-Hancock Counties Medical Society met at the King's Daughters' Hospital, Gulfport, on October 7, with 31 members present. Dr. Joe P. Evans discussed "Dysentery in Children." Refreshments were served by the hospital personnel.

Mrs. Grace Moss, R. N., Superintendent.

GEORGE C. HIXON MEMORIAL HOSPITAL.

The regular meeting of the George C. Hixon Memorial Hospital staff of Electric Mills, was called to order Friday, September 25, by Dr. A. M. McCarthy, surgeon in charge. Dr. McCarthy announced a complete change in personnel of his staff, the new members being Dr. Charles E. Baldree, Jr., who is assistant surgeon and obstetrician, and Dr. James LeRoy Hasie, formerly of Memphis, Tenn., who is in charge of the division of pediatrics and internal medicine.

Dr. McCarthy announced that the hospital's laboratory was now capable of doing any kind of work requested, including routine blood and urinalysis, in addition to blood chemistry determinations, metabolic rates, Wassermann and Kahn reactions, all serological and bacteriological cultures and smears, and tissue diagnosis, macroscopical and microscopical as well. The laboratory meets the requirements of a much needed department in our hospital, and will enhance the type of work done here in the future.

The laboratory is in charge of a competent technician, who is a graduate technician and a registered nurse as well, and who has had several years experience in the larger hospitals of the east. She succeeds the late Miss Helen Davis, formerly in charge of the laboratory.

The secretary's hospital report for the month of August was read and accepted. The scientific program for the evening was a case report given by Dr. A. M. McCarthy,—"An Unusual Case of Acute Appendicitis."

A. M. McCarthy.

WINSTON COUNTY.

The extreme health of the people here is giving the doctors a chance to talk "Hard Times."

There has been given a number of lectures on obstetrics at Houston, extremely fine, by Dr. McCord of Atlanta, Ga. It was the pleasure of Drs. W. W. Parks, R. L. Donald, W. W. Hickman, Bernard Hickman, M. L. Montgomery and E. L. Richardson to attend a part of them.

We are hoping to be 100 per cent strong from Louisville in attendance on October 8, at the meeting of the Medical Association in Meridian.

We had the pleasure of having Dr. Majures of Philadelphia with us at Rotary luncheon on September 30.

M. L. Montgomery, County Editor.

HOMOCHITTO VALLEY MEDICAL SOCIETY.

The fourth regular quarterly meeting of the Homochitto Valley Medical Society was held at Natchez on October 8. The following officers for the year 1932 were elected:

President, Dr. Paul Jackson, Liberty; Vice-president from Adams County, Dr. J. G. Logan, Natchez; Vice-president from Amite County, Dr. W. R. Brumfield, Gloster; Vice-president from Franklin County, Dr. C. E. Mullens, Bude; Vice-president from Jefferson County, Dr. W. H. H. Lewis, Fayette; Vice-president from Wilkinson County, Dr. C. E. Catchings, Woodville; Secretary-treasurer, Dr. W. K. Stowers, Natchez. Delegates to the Mississippi State Medical Association: From Adams County, Dr. E. E. Benoist, Natchez; from Amite County, Dr. W. R. Brumfield, Gloster; from Franklin County, Dr. D. P. Butler, McCall; from Jefferson County, Dr. W. H. H. Lewis, Fayette; from Wilkinson County, Dr. C. E. Catchings, Woodville. Alternates: From Adams County, Dr. W. K. Stowers, Natchez; from Amite County, Dr. Paul Jackson, Liberty; from Franklin County, Dr. C. A. Everette, Bude; from Jefferson County, Dr. B. R. Clark, Lorman; from Wilkinson County, Dr. C. E. Catchings, Woodville. Board of Censors: Dr. J. C. Rice, Natchez. Medical Defense: Dr. J. S. Ullman, Natchez.

Dr. R. J. Field presented a paper entitled "Post-operative Complications," which was discussed by Drs. Sessions and Rice.

W. K. Stowers, Secretary.

PRENTISS COUNTY.

Dr. W. H. Sutherland, Booneville, left for New York City on October 10 to attend the Clinical Congress of the American College of Surgeons, after which he attended the International Post-graduate Assembly at Milwaukee.

The Prentiss County Doctors Credit Bureau met at the Northeast Mississippi Hospital, Wednesday night, October 7, with the following doctors pres-

ent: W. V. Davis, W. W. Strange, W. H. Sutherland, and R. B. Cunningham of Booneville, and R. B. Caldwell and Robert Christian of Baldwin.

Dr. W. H. Anderson, Booneville, was in Oxford one day during the first week of October to assist in plans for the North Mississippi Medical Society gathering held there October 29. Dr. Anderson went from Oxford to Jackson to attend a meeting of the chairmen of the various sections of the State Medical Association.

H. B. Sutherland is now in Louisville, Kentucky, where he is a senior in the medical department of the University of Louisville.

Dr. Milton Adams has been missed from his work here among us. He is now at his father's home in Ripley where he is convalescing from a serious illness and operation.

It is a great pleasure to welcome to our midst Dr. Robert Christian, formerly of Amory, who has now located at Baldwin. Dr. Christian is a splendid gentleman and an able practitioner.

R. B. Cunningham, County Editor.

WILKINSON COUNTY.

Dr. W. I. Marsalis was confined to his home recently because of a large carbuncle on his neck. I am glad to report that he is improving and expects to be out again in a few days.

We have been enjoying a series of medical meetings. Dr. Charles E. Catchings and Dr. S. E. Field attended the meeting of the Eighth Councilor's District Medical Society in Natchez on October 6. This meeting was well attended and a most excellent program presented. It was thoroughly enjoyed by all.

Dr. C. E. Catchings and Dr. S. E. Field attended the Bi-Parish meeting of the East Louisiana State Hospital at Jackson, Louisiana, October 7. Dr. R. J. Field was to have appeared on this program but was prevented from attending by one of those conditions which may not be postponed, a labor case. His paper was read by Dr. S. E. Field.

At this meeting, Dr. Glenn Smith, superintendent of the East Louisiana Hospital and host for the meeting of the Sixth District Medical Society

of Louisiana, invited the members of the Eighth Councilor's District Society of Mississippi to be present October 14. Governor Long will address the Society and they have prepared a splendid scientific program. We are hoping that Mississippi will be well represented.

Dr. C. E. Catchings and Dr. R. J. Field attended the regular meeting of the Homochitto Valley Medical Society at Natchez, October 8.

Hope the above news will bring Wilkinson back from darkness to light.

S. E. Field, County Editor.

BAPTIST HOSPITAL, JACKSON.

The first meeting of the Baptist Hospital Staff after the summer vacation was held Tuesday night, October 6.

Superintendent Alliston made a brief talk in which he thanked the staff for their loyalty and co-operation, and assured them that every facility for work and service at this institution will be provided.

Dr. Shands was called on and asked to give a report of his vacation, spent in California and Oregon. He told of the work of some of the great clinics and surgeons in that section. His philosophical observations are always most interesting.

Mr. Parmelee, in charge of the clinical laboratory and recently placed in charge of the roentgen-ray work also told of some of his vacation studies at Ann Arbor, and some recent developments along that line.

Dr. Noblin, county health officer, told of some recent work with the blanching test in the diagnosis of scarlet fever. He spoke of the difficulty in making differential diagnosis between scarlet fever and "septic sore throat" caused by other organisms, and how important from the standpoint of quarantine it is to make such a diagnosis.

Dr. Armstrong reported an interesting case of tetanus in which massive doses of antitoxin were given "by all routes,"—intraspinal, intravenous and intramuscular. He made the observation that the later the symptoms of tetanus come on after the injury, the better the prognosis, and vice-versa.

Dr. Harris reported an unusual case of infection of the antrum which was not disclosed by roentgen-ray examination, but in which radical operation produced an enormous amount of pus.

Dr. Anderson reported an unusual case of tumor of the uvula, "half as big as a hen's egg," and discussed the occurrence of such things in general.

A letter from Dr. Wall advised of his return from Europe in a few weeks. He is on his wedding tour after his marriage to Miss King, superintendent of nurses at the Baptist Hospital. The staff is planning a pleasant surprise for them upon their return.

Dr. Underwood, president of the Southern Medical Association, is urging a full attendance of our doctors at the meeting in New Orleans November 18-20. A large majority of the doctors in Jackson will attend and several will take the special tour of the Canal Zone after the meeting.

T. J. Crofford.

AMITE COUNTY.

Dr. and Mrs. W. R. Brumfield, Gloster, motored to Natchez and attended the Eighth Councilor's District Medical meeting and Women's Auxiliary meeting held at that place.

Dr. W. R. Brumfield and Dr. Paul Jackson, Liberty, attended the regular meeting of the Homochitto Valley Medical Society at Natchez on October 8. Dr. Jackson was elected president of the society for the coming year.

Dr. C. W. Stewart, our county health officer, was at Liberty recently arranging for typhoid vaccinations.

Paul Jackson, County Editor.

SHARKEY COUNTY.

Mrs. W. C. Pool, second vice-president of the Women's Auxiliary of the Mississippi State Medical Association, spent October 6 in Natchez, attending the Homochitto Valley Medical Society luncheon.

Dr. W. C. Pool has returned home from the Vicksburg Infirmary and is at his office again.

Miss Abbie G. Hall, Sharkey County Health Unit nurse, is leaving this work November 1.

On October 20, the Sharkey County Unit of the Issaquena-Sharkey-Warren Counties Woman's Auxiliary will entertain all of the members at a luncheon in Cary, at the home of Mrs. H. S. Goodman.

W. C. Pool, County Editor.

EAST MISSISSIPPI MEDICAL SOCIETY.

The East Mississippi Medical Society met at the Lamar Hotel, Meridian, Thursday, October 8, at 3 p. m. Thirty-five members and five guests were present. The following program was rendered:

Case of a Little Boy Four Years of Age with Cardiac Insufficiency.—Dr. W. R. Hand.

Discussed by Drs. W. H. Banks, Leonard Hart, J. E. Green and James Bennett.

Snake Bite.—Dr. P. E. Holladay, Meridian.

Discussed by Drs. R. G. Hand and J. E. Green.

Sodium Amytal as an Anaesthetic. Dr. K. T. Klein, Meridian.

Discussed by Drs. A. C. Bryan, Hickman, J. E. Green and J. S. Hickman.

Rheumatic Fever in Infancy and Childhood.—Dr. J. E. Green, Laurel.

Discussed by Drs. F. J. Underwood, A. C. Bryan and F. G. Riley.

Address.—Dr. F. J. Underwood, Jackson.

Discussed by Drs. Dudley Stennis, J. E. Green and J. T. Googe.

T. L. Bennett, Secretary.

CHOCTAW CLUB.

Notwithstanding the financial depression, all of our physicians are getting three square meals a day. Drs. Arnold, Reed, Tabor, and James attended Dr. J. R. McCord's obstetrical lectures which were given at Houston recently.

Dr. Reed's children are teaching this year, his son at Longview, and his daughter at Weir.

Dr. and Mrs. Tabor are alone at this time. Their older son has a responsible position at Starkville and the younger one in a school at Longview.

Wesley, the son of the writer, is in the University of Alabama this year.

J. James, County Editor.

HONOR ROLL FOR NOVEMBER.

Your editors express their appreciation of the aid and co-operation of the following interested people in preparing the Mississippi section of the present number of the Journal: A. M. McCarthy, Mrs. Grace Moss, M. L. Montgomery, W. K. Stowers, R. B. Cunningham, S. E. Field, T. J. Crofford, Paul Jackson, W. C. Pool, T. L. Bennett, J. James, J. W. Lucas, E. H. Jones, H. A. Gamble, J. S. Hickman, W. L. Little, R. P. Donaldson, R. H. Brumfield, W. H. Curry, E. F. Howard, T. M. Dye, D. W. Jones, H. L. Scales, G. S. Bryan, J. A. Rayburn, J. S. Ullman, Lucien S. Gaudet, F. J. Underwood, L. Wallin, J. A. K. Birchett, Jr., L. J. Clark, Mrs. W. C. Pool, '32.

HARRISON-STONE-HANCOCK COUNTIES MEDICAL SOCIETY.

Pardon my not reporting news and other items of the Harrison-Stone-Hancock Counties Medical Society for last month. There was little or no news other than our meeting which I failed to report.

Our November meeting is to be held at the United States Veterans Hospital in Gulfport, at which time we plan to have by invitation of the Society the members of the South Mississippi Society. This meeting will be of interest, I believe, to every practitioner of medicine in Mississippi, because the staff of the Veterans Hospital plans to give us a paper and review of mental cases that might be met with in one's general practice.

Our Society met on Wednesday, October 7, with 33 members present out of a possible 52. A most enjoyable and instructive paper was read by Dr. Joe P. Evans of Gulfport who selected as his subject, "Diarrhea in Children and the Method of Treatment With Hartman's Solution."

Since our meeting I regret to report the death of Dr. George A. McHenry of McHenry, full details of which I do not know other than that he has been ill for some time.

It is also my information that Dr. George Wallace of Biloxi has been elected a fellow of the American College of Surgeons and that both he and Dr. E. C. Parker of Gulfport are now attending the annual meeting which is being held in New York City. So far as I know this is the only news and doings of the day in the three counties which comprise our Society.

Cummings H. McCall, Secretary.

JOINT MEETING.

The annual joint meeting of the Fifth District Medical Society of Louisiana and the Issaquena-Sharkey-Warren Counties Medical Society will be held in Vicksburg on Tuesday, December 8.

The speakers will include: Dr. Chaille Jamison, New Orleans; Dr. Henry W. Meyerding, Mayo Clinic, Rochester, Minnesota, whose subject will be, "The Treatment of Arthritis With Special Reference to the Prevention and Correction of Deformity;" Dr. W. H. Olmstead, St. Louis, whose subject will be, "Secondary Enemia, Present Status of Dietary and Inorganic Therapy."

Every doctor in Louisiana and Mississippi is cordially invited to attend this meeting.

DEATHS OF MISSISSIPPI DOCTORS.

James Copeland, Tupelo, myocarditis, acute cardiac dilatation; at Tupelo, August 2, 1931. Born February 21, 1859.

Dr. W. W. Smithson, Jackson; Carcinoma of the liver and stomach; September 9, 1931, at Jackson. Born at Kosciusko, Mississippi, December 20, 1874.

Dr. J. W. Henderson, Clarksdale; September 10, 1931, at Clarksdale, Mississippi. Born 1877.

Dr. Rosa Douglas Wiss, Meridian; September 14, 1931, at Meridian, Mississippi. Born at Hodges, South Carolina.

Dr. George A. McHenry, McHenry. Born 1858. Louisville Medical College, 1893; licensed 1891.

BOOK REVIEWS

Simple Lessons in Human Anatomy: By B. C. H. Harvey, M. D. Chicago, American Medical Association. 1931. pp. 434, 244 figs. and frontispiece.

Dr. Harvey, professor of anatomy at the University of Chicago, has brought together in this volume a series of articles first presented in *Hygeia*, now modified by some rewriting and the addition of new material, both text and illustrations. The purpose of the original articles, and of the publication in book form, conforms to the design of *Hygeia*. As stated by Dr. Fishbein in the foreword: "It was thought that people interested in health might appreciate some knowledge of the structure of the body and of the way in which it works, and thereby be better able to comprehend methods of prevention of disease and of its treatment." The title describes very incompletely the true content of the work, and as a lure to prospective readers the book deserves a more attractive and compelling title. The "Simple Lessons in Human Anatomy" are actually a treatment of dynamic human biology, the anatomical considerations only providing the requisite background for discussion of the mechanisms in operation. The book may be recommended to the lay reader as a story of the human body, filled with action and related in an interesting way. As reading in anatomy and physiology for nurses it will form an instructive supplement to the texts usually supplied. Errors in statements of fact, seemingly inevitable in books of this character, are few in number. It is regrettable that Haeckel's notorious plate showing the likenesss of embryos among purportedly different mammals should be resurrected.

HAROLD CUMMINS, Ph. D.

Chemistry for Nurses: By H. C. Biddle, A. M. Philadelphia, F. A. Davis Co. 1931. pp. 336.

In "Chemistry for Nurses," H. C. Biddle presents the result of considerable teaching experience. With its arrangement of material, its description of numerous laboratory experiments, its questionnaires and reviews of definitions, this will doubtless please instructors. The student will find in these 320 pages a multitude of useful and interesting facts, intelligently administered so as to enable her constantly to check up on her progress. For the ambitious one, there are hints and suggestions in the "Topics for Reports" which will lead her deep into a science which at present is not exceedingly popular among hospital people. A suggestion or two the author might consider. The rather detailed treatment of the ionization theory and the excursion into the electron theory could be much shortened and the latter dropped

altogether. Subjects of this kind which cannot be adequately treated on limited space serve to confuse the student and thus contribute to the above mentioned deplorable unpopularity of chemistry. They could easily make room for a more thorough treatment, mostly descriptive, of the important drugs, *i. e.*, the alkaloids, the synthetic ones of the veronal group (which are not mentioned at all in this edition), chemicals which every day place so much responsibility into the hands of the nurse. There is no reason why in this treatise, as in ordinary elementary textbooks of chemistry, the carbon compounds should be neglected for the benefit of physical and mineral chemistry. Little flaws, *e. g.*, the opinion that the so-called atomic weights are not based on hydrogen: 1:00 where as a fact, they are calculated on oxygen: 16.000, and the statement that chloroform burns which it does not, can easily be corrected and do not affect the value of the book, which as a whole will certainly be welcomed by the profession.

J. J. HAHN-KORFF.

Proctoscopic Examination and the Treatment of Hemorrhoids and Anal Pruritus: By Louis A. Buie, B. A., M. D., F. A. C. S. Philadelphia, W. B. Saunders Co. 1931. pp. 178.

This is an excellent monograph written in Buie's characteristic clear and concise style. The illustrations are plentiful and well selected. Superfluous material and discussions are omitted and only those procedures practiced by the author are emphasized, for having used them, he has found them thoroughly practical and entirely satisfactory.

MAURICE LESCALE, M. D.

What the Public Should Know About Childbirth: By W. B. Gossett, M. D. Minneapolis, The Midwest Co. 1931. pp. 290.

This book presents many interesting notes on ancient obstetrics and modern superstitions. On the other hand, the public probably would not be interested in the large mass of statistics that Dr. Gossett gives in regard to maternal mortality. The treatment of obstetrical analgesia, while discussed with liberal quotations, represents a personal opinion. Furthermore, few readers will agree with Dr. Gossett's thesis that cesarian section should be performed by an abdominal surgeon rather than even a trained obstetrician.

ARTHUR G. KING, M. D.

A Textbook of Laboratory Diagnosis with Clinical Applications for Practitioners and Students: By Edwin E. Osgood, M. A., M. D., and Howard D. Haskins, M. D. Philadelphia, P. Blakiston's Son & Company, Inc. 1931.

The object of this work is to furnish the fullest information from laboratory sources necessary for every graduate of a modern medical school to possess. The authors do not attempt to exhaust the subject, discussing only the material they consider most practical and essential. Plenty of references are given so as to allow further investigation. This work is clear and concise and furnishes not only essential text material but also easy reading. Sufficient clinical application is cited, especially in Part I, to allow the student to grasp the practicability of the procedures. The excerpts of the basic sciences are in accord with the reviews of an improved text, since it keeps continuously before the student fundamentals which are necessary in order that he may better grasp the subject. Part II deals with laboratory methods and recent improvements of the same. In a very helpful index laboratory procedures of importance in disease and disease syndromes are listed. The text has many excellent illustrations of especially merit those of blood cells. Both graduate and student of medicine will find this text excellent reading, a ready reference and a practical guide.

J. W. WILLIAMS, M. D.

Clinical Diagnosis by Laboratory Methods: A Working Manual of Clinical Pathology: By James Campbell Todd, Ph. B., M. D., and Arthur Hawley Sanford, A. M., M. D. Philadelphia, W. B. Saunders Company. 1931. pp. 765, with 347 illus. 7th ed.

It is now twenty years since the first edition of this book left the press. Since that time Dr. Todd has passed on and an enlisted associate, Dr. Sanford, has carried on the work along the same general line. He has in this, the seventh edition, attempted to bring the work up to the times by omitting certain obsolete methods and adding newer procedures. The newer methods include Corper and Uyei's method of cultivating the bacillus of tuberculosis; Fairhall's method for the determination of lead; Folin's recent method for the precipitation of protein from blood and body fluids; his modified method for determination of uric acid in the blood and his revised copper solution for the determination of blood sugar; Clark and Collip's method for determination of calcium; the technic of the Keith, Rowntree and Geraghty methods of determining blood volume and plasma volume; the alcohol meal; the gastric reaction to histamine; the Gregersen test for occult blood; a discussion of the Asheim-Zondek test for pregnancy and other procedures. The text is pri-

marily designed for students and the material was originally an outgrowth of the notes of Dr. Todd. It is an excellent text and a ready reference.

J. W. WILLIAMS, M. D.

Treatment of Skin Diseases in Detail: By Naxon Toomey, M. D., B. A., F. A. C. P. St. Louis, Lister Medical Pr. 1930. pp. 512.

This book by Toomey is one of the best I have ever read. Diagnoses and treatments are well laid out. The only adverse criticism that can be made by some physician is, that it is not illustrated.

JOHN A. DEVRON, M. D.

Tables of Food Values: By Alice V. Bradley, B. S. Peoria, Ill., The Manual Arts Press. 1931. pp. 127.

From data contained in Bulletin 28, Superintendent of Documents, Washington, D. C., Sherman's Chemistry of Food and Nutrition, Rose's Laboratory Manual and Foundation of Nutrition, the University of Hawaii's Composition of Some Chinese Foods, several commercial companies reports on their own products, and the calculations of Sherman and Gettler, Alice Bradley has produced a number of fairly comprehensive tables of food values. The first part of the book contains average portions of commonly used foods. The second part is a repetition of the same foods in 100 gram portions. Recorded are the protein, carbo-hydrate, fat, calcium, phosphorus, iron, vitamin A, B, C, D, and E content, likewise each food's value as a bulk and the chemical reaction numerically expressed. Recipes accompany the tables.

A sketchy introduction gives some general rules concerning diet calculation and an explanation for the mineral shares and vitamin values as she expresses them.

For her completeness she is being commended. However, one cannot afford to overlook several glaring omissions. Thoroughly ignored is coca-cola, 405,000 gallons of which are consumed daily in the United States. Likewise she does not mention beer or near beer, drinks which probably enjoy equal popularity. Her list of cheeses is inadequate. Certainly two commonly used cheeses, pimento and brick or American Swiss, deserve inclusion. One wonders too if her values for root beer are correct. It is difficult to believe that there is only 1.2 per cent hydrate in root beer taken as a beverage. Also, it might have been well to have listed some of the no value and very low value or slenderizing foods.

"For the diversion seekers" I offer two of Miss Bradley's dishes which were news to me: (1) Spaghetti salad; (2) alligator pear ice cream.

MAURICE SULLIVAN, M. D.

Practical Midwifery for Nurses: By Bethel Solomons, M. D., F. R. C. P. I., M. R. I. A. London, Oxford Univ. Press. 1930. Pl. pp. 354.

This is an excellent book, written by the able master of the Rotunda Hospital of Dublin. It appears to be designed for the mid-wife as well as for the nurse, and for the European mid-wife at that, and so contains more details regarding the practice of obstetrics than most American books.

The work is admirably fitted for the purpose for which it is intended. Explanations are simple and exact, the illustrations are excellent, and the diction is most pleasing. It can be highly recommended in every way as a text-book for nurses and nursing schools.

E. L. KING, M. D.

Easier Motherhood: By Constance L. Todd. New York, John Day Co. 1931. pp. 199.

This book is, as the publisher states, "the work of a lay researcher and directed to women": that is, it is designed to popularize the Gwathmey method of obstetrical analgesia among the laity, and the readers are urged to demand of their obstetricians that this method be employed. Favorable opinions from physicians and from women are quoted verbatim and in extenso. A list of various hospitals in which the method is employed to a greater or lesser extent is offered for the guidance of the expectant mother.

The book, then, is frankly a piece of propaganda, designed to bring about the adoption of this method of treatment by physicians, because of the demands of their patients. The disadvantages of the method are disregarded, and the impression is created that it is simple and easy, and absolutely safe, which assumptions are not entirely correct. The impression is also created that the Gwathmey procedure is not universally employed because of the indifference and inertia of the members of the medical profession. While this may be true in many instances, the reviewer knows that many expert obstetricians employ other equally satisfactory anesthetic or analgesic agents, and are not to be censured for preferring these procedures to the Gwathmey technic.

The author touches on the real points at issue, however, when she emphasizes the fact that the dignity of obstetrics as a special branch of medical science is not fully appreciated, and that too many cases are cared for by incompetent attendants. When this condition is remedied by the provision of proper facilities for rich and poor alike, and

when cooperation of husband and wife in every particular, is the routine, the standards of obstetric practice will be raised, and the relief of the pains of labor will receive the attention it deserves. There is no doubt that there is great room for improvement, however, under the present conditions, and this book may help to attain this end, even though it manifests a spirit of impatience, which is somewhat out of place in a lay discussion of a technical medical subject.

E. L. KING, M. D.

Recent Advances in the Study of the Psychoneuroses: By Millais Culpin, M. D. (Lond.), F. R. C. S. (Eng.). Philadelphia, P. Blakiston's Son & Co., Inc. 1931. pp. 348.

Another volume of a recent "advances" series, this dealing with the psychoneurosis.

The historical outline is replete with authentic material and displays the result of much statistical and historical research. Well does the author declare that the study of psychoneuroses does not begin and end with the analysis of the individual. The psychoneurosis of the War are thoroughly explained and interpreted in the author's own manner, though certain ones still continue to exploit the term, "Shell Shock," which in my opinion is a misnomer and which the author concedes willingly may occur in civil life during peace as well as war time, the symptom complex being no different.

The author carries us through a corollary comprising terms, phrases and usages common to psychoanalysis. At one time he is bold enough to attempt to entirely discard the term "neurasthenia" without adding a replacement. In this he is positively guided from his ultra psychoanalytic viewpoint.

The psychoneuroses in industry is given a prominent part, another term for the psychology of aptitude and placement. He likewise makes a plea for a more thorough understanding and better teaching of mental hygiene which is quite essential as a step to the proper handling of the psychoneurotic.

The book comprises in part a brief abstract on psychotherapeutic clinics without definitely giving a resume of the technic and use in the various cases, the time required, etc.

The contents comprises a preface, twelve chapters and an index, very well written and given entirely from a psychoanalytic standpoint.

WALTER J. OTIS, M. D.

International Studies on the Relation Between the Private and Official Practice of Medicine, with Special Reference to the Prevention of Disease: Conducted for the Milbank Memorial Fund: By Sir Arthur Newsholme, K. C. B., M. D., F. R. C. P. Baltimore, Williams & Winkins Co. 1931.

The Milbank Memorial Fund turned to Continental medical practice for information which might shed light on some of the problems in preventive medicine in this country. The fund had found through certain of its activities here that the broader view of public health relations was becoming increasingly more necessary and they were fortunate in obtaining the services of Sir Arthur Newsholme to collect the facts and sum up the policies of European and private and official medicine. These international studies constitute the first two of three contemplated volumes and are primarily the records of the facts.

It is conceivable that Sir Arthur has accumulated much more information concerning the fourteen countries visited than he has been able to reveal in the five hundred pages allotted him. Although the subject matter has been so confined with excellent technic it is to be hoped that the fund will see its way to present a more detailed report at some future time.

Each national study concisely reviews the problems in its medical and health practices and presents the reader with a clear picture of the present status of medicine, its evolutionary stages and its future trends. Although the philosophic considerations are to be left to a future volume, Sir Arthur inserts timely remarks at such points as questions are most likely to arise in the mind of the reader.

All persons interested in health matters have here a new and useful reference book on foreign medical practice which must answer many of the questions we have been wanting to ask but did not know to whom to turn for the answer.

W. H. PERKINS, M. D.

Health on the Farm and in the Village: A Review and Evaluation of the Cattaraugus County Health Demonstrations with Special Reference to Its Lessons for Other Rural Areas: By C. E. A. Winslow, Dr. P. H. New York, The Macmillan Co. 1931. pp. 281.

In 1921 Cattaraugus county, New York, applied for aid under the offer of the Milbank Memorial Fund for a cooperative demonstration of the effectiveness of known health measures in a typical United States county. The application was

accepted because this county satisfied the specifications embraced by the offer, and, of no less importance, already had an efficient public health service and an intelligently interested county health minded citizenry. The demonstration was opened in 1923 and Dr. Winslow surveys, reviews and sums up the efforts and results of the program from that date to 1929. The presentation through the eyes of the essayist produces a delightfully smooth reading account of what might easily have been tedious to even the most ardent seeker after facts.

Dr. Winslow has conscientiously and critically presented the results of an experiment in the treatment of a local problem and has added a valuable contribution to public health literature. The evaluation by a single individual of the results as a whole, and of the many specific problems met and attacked, appeals to the reader, both scientifically and in the aesthetic sense. The entire review is based on ascertained facts and the authority of the writer. When Dr. Winslow has appeared to be hypercritical or over-lenient, the conversant reader has already been supplied with sufficient information to permit of his own independent judgment.

This book is an exceptional "case record" in public health and is to be recommended as such with the added asset to its readability by the running comments of the author.

W. H. PERKINS, M. D.

Encephalitis Lethargica: Its Sequelae and Treatment: By Constantin von Economo. Translated and adapted by K. O. Newman, M. D. London, Oxford University Press. 1931. pp. 200.

This is a translation of a good work ably done. Its author was one of the pioneers in work on lethargic encephalitis and the pioneer to whom probably most credit is due for our present day concept of the disease. His style furnishes one with a simple, to-the-point and interesting resumé of work on the subject, nor does he fail to give proper credit in his exhaustive reference to other workers. Of prime importance, is his application of the findings of this disease to psychologists, many of the concepts of which science have been revolutionized by the findings in cases of lethargic encephalitis. The statement, "Every psychologist who in future attempts to deal with psychological phenomena such as will, temperament, and fundamentals of character such as self-consciousness, the 'ego,' etc., and is not well acquainted with the appropriate observations on encephalitic patients

and does not read the descriptions of the psychological cases in many original papers recording the several mental symptoms, will build on sand," expresses a point well taken. The author's historical survey is detailed and his discussion of etiology is interesting in lieu of its present understanding in respect to the disease. His pathological discussions are excellent and our ideas of the lesions present and of the possible location of the several centers discussed are refreshed and augmented. The intricate maze of sequelae is emphasized and the treatments holding forth most hope in relieving disease and sequelae are detailed. No man who is interested in psychological problems or in diseases of the central nervous system should fail to profit by reading this book.

J. W. WILLIAMS, M. D.

Clinical Dietetics: A Textbook for Physicians, Students and Dieticians: By Harry Gauss, M. S., M. D., F. A. C. P., assisted by E. V. Guass, B. A. St. Louis, C. V. Mosby Co. 1931. pp. 490.

This book presents the lectures given by the author on Clinical Dietetics at the University of Colorado School of Medicine. The discussion of the history of diet is well written and very interesting. From a practical point of view, however, the book leaves much to be desired. There are a good many misstatements and errors, for instance, on pages 48 and 442, we find this statement: "Liver is given in pernicious anemia because of its fat-soluble vitamin E and is the specific therapy." It is the missing amino acid complex that liver supplies for the pernicious anemia patient and not vitamin E, which is necessary for reproduction in lower animals. The author obtained this idea from Kosseler's work which was concerned with a vitamin deficiency in this disease, but later work of Cohn and coworkers, and West and Dakin in New York, shows that this missing factor is either a nitrogenous base or a dipeptide of two amino acids of the protein molecule, hydroxy glutamic acid and hydroxy proline. Several other erroneous points of view are given in subsequent chapters.

In the discussion of the necessity of roughage the author does not consider Alvarez's most re-

cent studies on the subject. Too much attention is paid to the dietary factors in gastrointestinal diseases and some of the case reports indicate that the therapeutic results were due to other factors of treatment.

One of the most serious errors from a nutritional point of view is given in the following statement: "By the expression of normal diet we desire to indicate a diet that will satisfy the normal physiologic needs of the body, while the customs of the person are disregarded." This statement will not be accepted by most serious students of nutrition. It is well known that different species of animals have different nutritive requirements, both qualitatively and quantitatively. Likewise, in man, the customs and habits of different races of people are also very important factors in their nutritive wellbeing. The palatability of diet is also not considered, a fact of first importance to the average layman.

It would seem, therefore, that this edition, while serving to again emphasize the importance of diet in clinical medicine, does not contribute nearly as much to the subject of clinical dietetics as the works of McLester or Harrop.

H. H. BEARD, M. D.

PUBLICATIONS RECEIVED.

Williams and Wilkins, Baltimore: The Foundations of Medical History, by Sir d'Arcy Powers, K. B. E., F. R. C. S. (Eng.). Surgical Pathology of Prostatic Obstructions, by Alexander Randall, M. A., M. D.

William Wood and Company, New York: Gynecology and Urology for Nurses, by Samuel S. Rosenfeld, M. D., F. A. C. S.

J. B. Lippincott Company, Philadelphia: Simplified Diabetic Management, by J. T. Beardwood, Jr., A. B., M. D., F. A. C. P. Surgical Pathology of the Diseases of Bones, by A. E. Hertzler, M. D.

The Macmillan Company, New York: Confessio Medici, by Stephen Paget, F. R. C. S.

J. W. Stacey, Incorporated, San Francisco: Health for Travelers, by Alfred C. Reed, M. D.

The National Research Council of The National Academy of Sciences, Washington, D. C.: Bulletin of the National Research Council.

SOUTHERN MEDICAL ASSOCIATION

THE PROGRAM.

Advanced proofs of the program of the Southern Medical Association have come to the office of the New Orleans Medical and Surgical Journal. Examination of this program suggests that the coming meeting of the organization should be the best meeting that it has ever held. Certainly the program is one that is interesting, stimulating and informative.

On Wednesday morning there is a general clinical session in the Municipal Auditorium at which time Dr. Felix Underwood will preside. This program is made up largely of presentations by men of high reputation, who have achieved a name and fame for work accomplished. Dr. H. C. Clark, Director of the Gorgas Memorial Laboratory of Panama, will speak on malaria. Dr. Edward H. Cary, President-Elect of the American Medical Association, will discuss glaucoma. Dr. Bedford Shelmire, Professor of Dermatology at Baylor, will speak on eczema, and Dr. C. W. Dowden, of Louisville, on secondary anemias and their treatment. Dr. C. W. Stiles of the United Public Health Service will give a clinical presentation on hookworm disease, and Dr. H. E. Conwell, Chief of the Orthopedic Service of the T. C. I. & R. R., will present a lantern slide demonstration of fractures of the spinal vertebrae. In the afternoon session, Dr. J. R. McCord, Professor of Gynecology and Obstetrics at Emory, will talk on prenatal care, and he will be followed by Dr. J. M. Finney, Professor of Clinical Surgery at Johns Hopkins University, who will lecture on some problems in abdominal diagnosis. Dr. Arthur Sprenger will then give a discussion on urological problems in childhood. Dr. A. Graeme Mitchell, Professor of Pediatrics, University of Cincinnati, has selected for his subject a consideration of some phases of nutrition in children, and Dr. Willard Bartlett will discuss a method of estimating the thyrotoxic state. Dr. M. T. Burrows, of Pasadena, Calif., will discuss some phases of cancer, and Dr. H. A. Gamble, of Greenville, Miss., will speak on some surgical problems of infection. The last two presentations in the clinical session will be talking moving pictures, the one having to do with suspension of the uterus, and the other on experi-

mental gastroenterostomy, the first to be given by Dr. Harold Jones of Northwestern University, and the last by Drs. H. B. Kellogg and W. F. Windle, of the same university. General clinical sessions will also be given on Friday, the last day of the meeting, at which sessions the presentations will be made by New Orleans physicians.

The general session will be held Wednesday evening. Invocation will be by Right Reverend James C. Morris, Bishop, Diocese of Louisiana, and the addresses of welcome will be given by Dr. Emmett L. Irwin and Dr. S. C. Barrow. Dr. Arthur T. McCormack, of Louisville, will respond to these addresses of welcome.

The Surgeon General of the United States Army, Major General Robert U. Patterson, will deliver the main address of the evening, and after him will come the president's address. Major Patterson will speak on "The Earliest American Casualties in the World War," and Dr. Underwood's subject will be "Public Health in the Prevention of State Medicine."

Thursday and Friday will be devoted to the section meetings. The program for these meetings is most attractive. Not only are many well known Southern physicians to appear on these programs, but there will also be essayists from the North and West. Every branch of medicine will be represented at these section meetings. Medicine, surgery, pediatrics, gastroenterology, pathology, neurology and psychiatry, radiology, dermatology and syphilis, bone and joint surgery, obstetrics, gynecology, urology, ophthalmology and otolaryngology, are all specialties which are represented by the special sections. In addition to these, there will be a section meeting of railway surgeons, a meeting of the section on public health, a section of the National Malaria Committee, and the meeting of the American Society of tropical medicine. The section on medical education has also arranged a most constructive program, as has the Southern Association of Anesthetics.

Every day, in the morning, there will be a meeting in the Roosevelt Hotel of the Woman's Auxiliary to the Southern Medical Association. These programs will be relatively short, and will be fol-

lowed by the various entertainments that have been provided for the visiting ladies. Wednesday there will be a luncheon at 12:30 p. m. in the Roosevelt Hotel. That evening comes the President's Reception followed by a Grand Ball. On Thursday, a luncheon will be held at a half dozen or more of the famous French Quarter restaurants, to be followed by personally conducted sight-seeing trips through French Town. That evening a most elaborate entertainment has been provided by the Woman's Auxiliary to the Orleans Parish Medical Society in the Municipal Auditorium, with music by the Suburban Gardens Orchestra. On Friday, a trip to the Gulf Coast has been arranged.

For the athletic doctors, golf and trap shooting has been provided. For both of these two forms of athletic entertainment many and numerous trophies have been collected.

It is impossible to give more than a short sketch of all the program of the Southern Medical Association provides. The various presentations are so catholic in their breadth that it will be impossible for a medical man not to be able to find something on the program that will be of great interest to him. We again urge the members of the Mississippi State Medical Association and the Louisiana State Medical Society to attend this meeting. They will certainly come away from the meeting satisfied that they have learned, that they have had a pleasant time, and that they have met many interesting and delightful physicians.

IMPORTANT NOTICE.

To the Members of the Louisiana and Mississippi State Medical Societies:

November 18 will find the medicos of the South, with some visitors from other States, carrying on the meeting of the Southern Medical Association in New Orleans. This Association is too well known to need the feeble praise that we can give. Its section meetings are among the best in America. Its Journal, presenting the papers and discussions of these Sections, is full of choice mental pabulum. The personal ties made or renewed at such gatherings enrich the lives of those linked by them. Not to be overlooked is the charm of the old Crescent City which has come through war, disease and flood to prosper a little even at a time of world depression.

We address ourselves particularly to those not at present members, urging them to avail themselves of this opportunity to join and mingle with their fellows so as to enjoy advantages not available in any other way. Cut out the blank form below, fill it out, sent it; then come to the meeting!

Yours cordially,
Committee of Membership
E. E. Allgeyer
P. J. Carter
C. Grenes Cole
Geo. B. Collier
J. D. Rives
T. B. Sellers
Hermann B. Gessner, Chairman.

SOUTHERN MEDICAL ASSOCIATION—APPLICATION FOR MEMBERSHIP

....., 193.....

I desire to be enrolled as a member of the Southern Medical Association (which includes subscription to the Southern Medical Journal) for which I enclose \$4.00 to pay the first year's dues. I am a member in good standing of the

.....County and.....State Medical Societies.

Name

City.....State.....

Street or Office Address.....

Fill out and mail with check to Southern Medical Association, Empire Bldg.,
Birmingham, Ala.

New Orleans Medical

and

Surgical Journal

Vol. 84

DECEMBER, 1931

No. 6

SOME OBSERVATIONS ON ROENTGENOGRAPHY OF THE SKULL.*

B. H. NICHOLS, M. D.,†

CLEVELAND, OHIO.

The subject of roentgenographic findings in the skull and head necessarily offers a large field of study. It is my purpose in the time allotted to me to describe some of the more common of these findings, with their interpretation. Since the opinions which have been recorded in the literature by different authors are so varied in regard to the evaluation of these findings and their clinical significance, we desire to consider the subject more or less in the light of our own observations.

For many years it has been our practice at the Cleveland Clinic to make stereoscopic films of the head in the case of all patients who are referred to the roentgen-ray department for nasal accessory sinus examination. We have made use of these films not only in the study of the sinuses but in the comparison of a great group of apparently normal individuals. We have found this study to be of great help when the question of bone changes or of intracranial lesions has come up for consideration.

Let us consider some of the more common diseases of the skull, first of all,

changes in the skull itself. Among the most common of these changes is synostosis, or early closure of the intracranial sutures with resulting microcephaly; osteoporosis, showing the rarefaction in the bones of the skull which is characteristic of this condition; enostosis, that is, the type in which there is increased irregular bone development on the inner table of the skull, usually in the frontal region, and which we believe has no clinical significance; leontiasis ossium with its more or less characteristic proliferative bone change; osteomalacia with extreme atrophic changes in the skull bones; osteitis fibrosa cystica, showing this characteristic inflammatory bone lesion involving the cranial bone; Paget's disease, with marked thickening of the skull, rarefaction, and small mottled areas of increased density; metastatic malignancies of the carcinoma group with their destructive areas and true malignant bone tumors; osteogenic sarcomata; cranial tabes, with its marked destructive and proliferative changes, usually of the suppurative type. Osteomyelitis and practically all diseases which are found in bone in other portions of the body may involve the skull. Therefore we shall consider in detail only such changes as are produced by lesions within the cranium itself.

We might mention the occurrence of bone changes found in the skull in the case of patients suffering from congenital splenic anemia, hemolytic jaundice, and particularly sickle-cell anemia.

*Read before Section on Surgery of the Mississippi State Medical Association, Jackson, May 14, 1931.

†From the Cleveland Clinic.

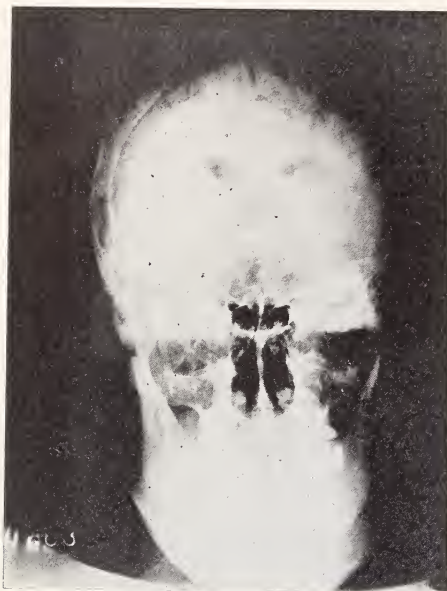


Fig. 1. Encephalogram showing cerebral atrophy in an epileptic, most marked on the left side.

Convolutional atrophy: Convolutional atrophy of the skull is caused by increased intracranial pressure due either to an internal hydrocephalus or to any growth within the cranium which increases the volume of the cranium content. This is usually a characteristic picture, produced by the constant pressure of the convolutions of the brain against the inner table of the skull, but we must always bear in mind the possibility of changes in the skull simulating convolutional atrophy which may be seen during the period of cranial development and well into adult life. Particular care should be exercised in the case of patients under 30 years of age.

The finding of changes in the sella turcica, such as erosion, enlargement or flattening of the sella, which also indicate pressure within the cranium, is a great aid in confirming the diagnosis in cases of suspected convolutional atrophy. In many cases, particularly in young patients, definite separation of the sutures

may be found, a condition which is pathognomonic of intracranial pressure.

The finding of increased vascularity in the skull must be interpreted cautiously as there is a great variation in the size and extent of the vascular system in normal individuals, and unless such changes are accompanied by erosion of the skull or other signs of a lesion, it is quite difficult to arrive at any definite conclusion as to the diagnosis. However, if the condition is localized to one side of the skull or to one area of the skull, the probability of the presence of a lesion is much greater. Sometimes an area of a rather rosette type of vascularity may be definitely seen in the skull, indicating a possible arteriovenous aneurysm.

Perhaps the most important finding in the presence of single intracranial lesions found upon roentgenographic examination of the skull in calcification within the cranium. This calcification may be either bone lime deposit or adamantine. The lime deposits many times may be indicative of hemorrhage into a tumor which has undergone calcification.

The type of calcification which is found most frequently in head is that which is found in the pineal gland, and I would call your attention to the advisability of considering all calcification in the pineal gland in patients under 30 years of age, in whom no other evidence of pathology is present in the head or skull, as being of no clinical significance. This type of calcification may occur as early as 10 years of age. It is well to note its location. It is usually located in the midline with a variation of about one centimeter anterior-posteriorly or one centimeter in the vertical position, but always in the midline laterally. If this shadow then is found to be displaced laterally, it is sometimes of very great help in the lateralization of a tumor, the displacement always being to the opposite side from that occupied by the tumor. In



Fig. 2. Encephalogram showing an adamantinoma, Rathke's pouch cyst, showing calcification above the sella.

patients past 30 years of age the calcification may be indicative of tumor of the pineal gland itself.

Calcifications in the choroid plexus are usually situated well posterior bilaterally, and have no known clinical significance.

Calcification in the falx may often be seen, particularly in the anterior-posterior view. This type is of bony formation, a rather thin septum of bone being present between the hemispheres. This type of calcification is also without clinical importance.

Calcifications in the brain substance itself are of great significance. Unfortun-

ately, in the presence of tumors of the brain of the gliomatous group calcifications are not frequently found—perhaps in about 6 to 10 per cent of the cases. In the presence of suprasellar cysts such calcifications occur in about 70 per cent of cases, these usually being Rathke's pouch tumors. Also, in edtheliomata such calcifications are frequently found.

Calcifications may be present in aneurysms at the base of the brain. Also dense calcification may occur in solitary tubercles of the brain and are frequently seen in subdural hematoma or traumatic lesions in the dura caused by external violence, such as fracture or concussion.



Fig. 3. Encephalogram showing calcification in the pineal gland.

Calcifications in the presence of epilepsy have been frequently reported. It has not been our experience to find many calcifications of the brain in conjunction with neuropathic epilepsy which we felt could be of any significance as a causal factor, unless accompanied by a tumor.

What then might we consider the positive finding in intracranial disease? These may be summarized as follows:

- Calcifications in the pathological area;
- Localized bone change in the cranium;
- Changes in the sella turcica, such as

erosion, change in size or shape of the sella;

Convolutional atrophy of the skull;

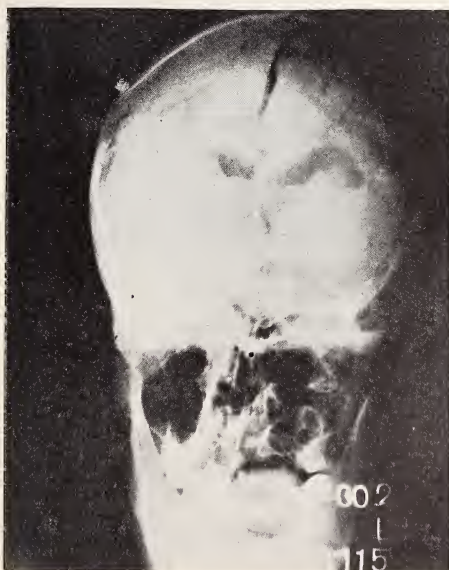
Displacement of the pineal shadow;

The presence of air in or about the lesion;

Increased vascularity of the adjacent bone.

From one or a group of the above changes we are led to suspect the presence of a lesion in the brain.

The determination of the presence or absence of an intracranial tumor is the



Figs. 4 and 5. Encephalograms showing cerebral atrophy in the left parietal region, post traumatic.

problem with which we are most often confronted, and we should make an effort to determine the location of such a lesion if it be present, and contribute as much as possible to determining its type.

Gliomata constitute a large group of brain tumors—about 43 per cent of all tumors of the brain are of this type. Six to ten per cent of these may show a calcification in the tumor which will be helpful in locating the lesion. The pineal shadow may be displaced or intracranial pressure may be present. I think this is about all the information we can expect from the roentgenographic examination.

Pituitary tumors, particularly adenomata, show enlargement of the sella, usually with deepening of the sellar floor, expansion of the sella with erosion of the clinoid processes often to complete de-



Fig. 6. Same Case as Fig. 7. See legend on Page 435.

struction. Intracranial pressure is usually absent in this type of tumor. These are the principal findings in hypophyseal tumors.

Suprasellar tumors are usually found in children and are of Rathke's pouch type. Nearly 70 per cent of these lesions show calcification in the tumor and nearly half of such tumors show some enlargement of

the sella turcica; if they have developed to such a size as to produce dilatation of the third ventricle, evidence of intracranial pressure will also be present.

Meningioma or dural endotheliomata: In the case of fifty per cent or more of these tumors, changes are found in the adjacent bone, showing destruction of the inner table of the skull in the form of an



Figs. 6 and 7. Encephalograms showing melanoma of the meninges with secondary hyperplasia of bone involving the left mastoid area.

erosion. Also bone formation may be present, either flat or spicular in type, and many times vascular changes are shown such as wide deep grooves radiating from the region of such a tumor.

Acoustic neurinomata: The most characteristic finding in acoustic neurinomata is erosion of the petrous portion of the temporal bone. In the presence of this finding, together with increased intracranial pressure and a dilatation of the internal meatus, we should be justified in at least tentatively making a diagnosis of acoustic neurinomata.

These, then, are briefly what we may anticipate as possible findings in roentgen-ray examination of the skull when the presence of a brain tumor is suspected.

This limited amount of information is obviously inadequate for the diagnosis of a large percentage of brain tumors.

Brain surgeons have long recognized the limitations of neurologic findings for the diagnosis; it was left for Dr. Dandy, of Baltimore, in 1919, to add to the roentgenographic findings ventriculography, a method which has proved of great value in the localization of brain lesions. At the present time the introduction of air through the spinal canal which is known as encephalography, adds immensely to ventriculography when there is no block in the ventricular system and gives us a method which in addition to other findings makes for the accurate diagnosis and location of tumors in a very high percentage of lesions.

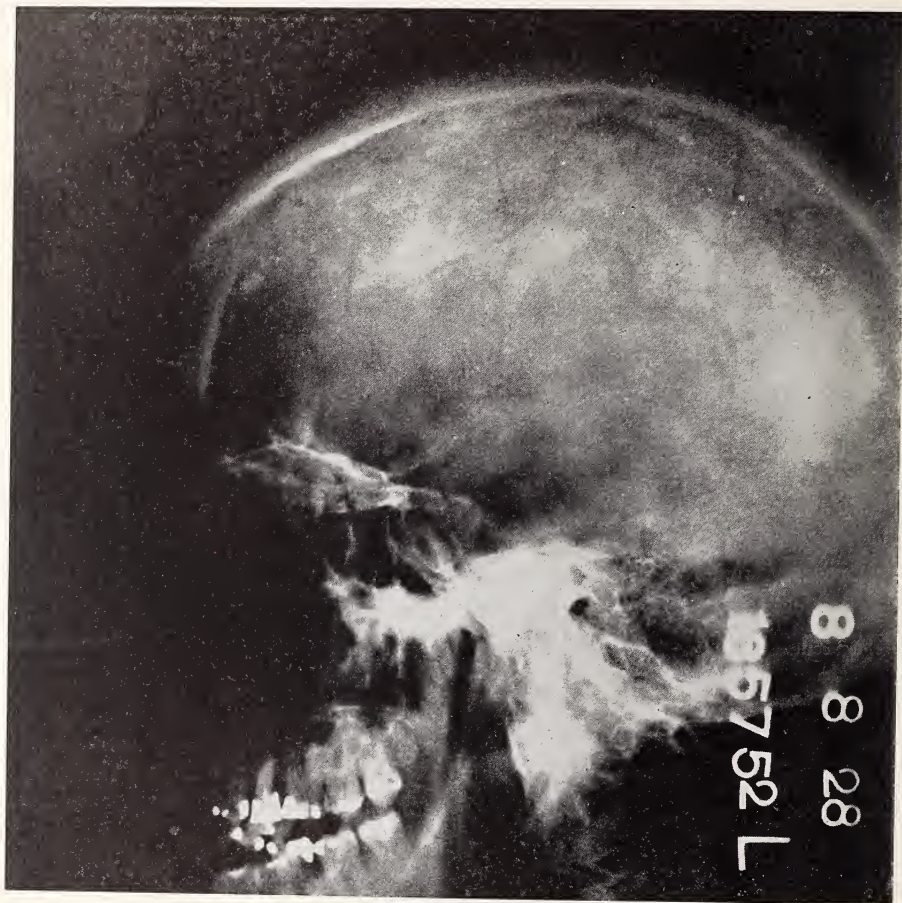


Fig. 8. Encephalogram showing depression of the floor of the sella turcica, enlargement and erosion, significant of the presence of a hypophyseal tumor.

The advantage of encephalography is that we are able to visualize the ventricles and determine their size, shape and position; in addition, the cortical air distribution may be visualized, giving us a definite knowledge, in most instances, of the cortex of the brain. As this air fills the spaces between the convolutions of the brain, usually most marked over the anterior two-thirds of the brain, it is possible by obliterated areas to determine the presence of lesions located near the cortex

of the brain, or to detect the presence of intracranial pressure. Increased pressure of necessity eliminates the cortical air markings in general. Such changes, of course, may also be due to inflammatory meningeal lesions, but confusion in this regard seldom occurs in the case of a suspected tumor. If atrophy of the brain substance is present, the air markings are necessarily increased to such an extent that in the presence of grand mal or of old trau-



Fig. 9. Encephalogram showing microcephalic skull with synostosis.

matic lesions, many times a large area of brain atrophy may be definitely localized.

We are also able to determine by encephalography whether or not there is a block in the ventricular system. This procedure we have carried out in some 200 cases during the past year without a single fatality which could be ascribed immediately to this injection. An attempt is made to withdraw all of the fluid. In order to ascertain whether the intraspinal pressure will permit this, the spinal pres-

sure is taken with the patient in the horizontal position before any injection is made, and then the injection is made with the patient sitting up. Dr. Gardner, who makes these injections, feels that at no time during the injection should the pressure be allowed to drop below the original reading when the patient was in the horizontal position.

The contraindications for encephalography are the presence of lesions of the fourth ventricle or a lesion of the occipital



Fig 10. Ventriculogram showing a tumor of the fourth ventricle, an astrocytoma with blocking of the ventricular system and internal hydrocephalus.

region in which there is an internal hydrocephalus, with pressure which might herniate the basal tissue into the spinal canal after withdrawal of spinal fluid; in such cases the patient should be prepared for immediate operation after the injection has been made.

We are perfectly confident, however, that encephalography is one of the greatest contributions which have been made to roentgenology in the past ten years, and should be used much oftener than it is, as by this method many lesions may be definitely localized and operation performed,



Fig. 11. Encephalogram showing erosion of the petrous portion of the right temporal bone characteristic of an acoustic neuroma.

thus preventing permanent blindness and death of patients suffering from advanced intracranial tumors.

REFERENCE.

Dandy, W. E.: Ventriculography following air into cerebral ventricles. *Am. J. Roentgenol.* 6:26, 1919.

DISCUSSION.

Dr. W. A. Dearman (Gulfport): This paper is indeed a surprising paper. The doctor has given a great idea of his technic, wonderful clinical facilities, and a thorough familiarity with his subject.

It has been my good fortune, or bad, through the years—some people develop a brain tumor, and somehow quite a good many of them get into my hands, and it has been my misfortune to work out quite a number of brain tumors. Dr. Nichols has covered the field thoroughly. We deal with traumatic conditions of the skull. We now have a method of determining the size, shape and location of the tumor. The work done by Dr. Nichols and others has placed us in a position whereby often, even with limited facilities, we can make a diagnosis of some cranial or intracranial condition.

I have in my files some very interesting cases of brain tumor. However, I have never had the refinement of encephalography to help me. It is

wonderful what has been achieved in this direction in the past ten years.

I knew a very prominent woman who began to have convulsions. The right knee began to jerk. She had four or five convulsions, bit her tongue, and was unconscious, and there was a strong leucitic history back of it. However, her Wassermann was negative and the spinal fluid was negative. Some radiologist made a reading of the skull and he found a frightful nosis. Well, I made another Wassermann and got one four-plus Wassermann. I never could get another to save my life. Under entire leucitic handling that nosis vanished like a snow ball before the noon day sun.

Now, I have been interested in finding something with reference to convolutional atrophy. It is interesting to me. I had a patient, a girl, that had a brain tumor that had persisted a number of years. It was an unnerving thing. She was brilliant. She had run into the side of a door facing. She was a very brilliant girl in school, but she soon found she did not have the capacity to take up an ordinary problem in school. She went blind. They brought her to me. She had a tumor in the lateral ventricle. She had the most marked convolutional atrophy I have ever witnessed in my life. She never had a pain in her life. That tumor extended from the front of the head to the posterior brain. The folds were widely separated. She had such a frightful convolution atrophy that the outer table and inner table had been thinned to such an extent it was hardly the thickness of an egg shell. If that girl had fallen on the pavement there is no doubt in the world but that her skull would have been shattered like an egg shell. Well, they did an operation, not to remove the tumor, but to preserve her sight in her right eye, but she died soon after.

I was very much struck with the position in which Dr. Nichols makes his pictures to get his encephalography and ventriculography. We do very little of it down in this section of the country because it is a comparatively new thing and we do not know a great deal about it. However, I feel in time we will begin to do it, and I think the information Dr. Nichols has brought us has been of great value.

I thank Dr. Nichols for his very timely paper.

Dr. Randolph Lyons (New Orleans): I have only one word to say about the subject. My experience in making ventriculographs and encephalographs is very limited, but when the encephalographs were first written about I had a case of brain tumor that I came upon at New Orleans in Touro Infirmary. I didn't do the ventriculographs myself, but we had Dr. Mix, the surgeon, see the

patient, and she had the classical symptoms of brain tumor. An ordinary roentgen-ray didn't show a thing. They brought the patient up in the operating room and withdrew a certain amount of fluid and put in the air. We sent her down and had a roentgenogram made and it showed a typical tumor, but, unfortunately, fifteen or twenty minutes after that the patient showed respiratory failure and in a few hours died. I am not saying the ventriculograph was entirely responsible for the death of that patient, but it has to be done with a great deal more care, I think, than encephalography. But, as I say, so far as we could tell, every precaution was taken and yet the patient died in a very short time after we got that picture, and when we brought her up there she certainly was not dying. Now, it is possible we made a mistake in our technic somewhere. If we did, I don't know where it was.

When we talk about doing these things everywhere, we ought to be a little bit cautious. They ought to be done by men who have experience in that line. The same thing is true in inserting these plates. It takes a man with a good deal of experience to do that work.

I certainly enjoyed the paper immensely. I just mention this as a warning to those who want to do it without much experience.

Dr. Nichols (closing): I want to thank you gentlemen for the discussion. I don't mean to leave the impression these things are without danger. Fortunately, in about 200 encephalographs we have done we have had no deaths except in one case which occurred several hours after the injection, which probably was not due to encephalography. This is important in encephalography. As you withdraw the fluid, watch your pressure, and replace it with air. The fluid comes back much more rapidly and very often the intra-cranial pressure will come back more rapidly. Encephalography is a much more simple procedure than ventriculography, and I feel it is perfectly safe to do it in cases in which we have evidence of apoplexy and traumatic injury. I think it should be carefully considered. This has been our observation in epileptic patients in which we have done encephalography,—that many of those patients have gone months without an attack. Just how it does it, we don't know, but it does relieve these patients from attacks.

Of course, we all recognize this isn't simple. I think you can remember when we began making spinal Wassermanns and patients died. Now, a brain tumor is a very serious problem, and I think we have a right to take some liberties if we can save a few of those poor patients from losing their eyesight. They are going to die anyhow. I think we have a right to make some investigations if we take some chances.

I want to say that in doing these cases many of them we do under anesthesia, not all of them, but a good many of them. The patients are sick afterwards. Don't be alarmed if they have a terrific headache for a day. That doesn't make any different. Twenty-four or forty-eight hours of severe headache is going to be not such a severe thing; you can control that. It is not so satisfactory under a complete anesthetic as it is under a local anesthetic.

FORMATION OF ARTERIOVENOUS FISTULA FOR RELIEF OF SEQUELAE OF AORTIC ANEURYSM.

AMBROSE H. STORCK, M. D.,
NEW ORLEANS.

In 1926, Wayne Babcock¹ suggested a novel method of treatment for the relief of symptoms produced by aortic aneurysms. This procedure is devised to take advantage of the reduction of wall pressure in a tube conducting moving fluid, which occurs incident to an increase in the rate of flow of the fluid when head pressure in the system is lowered. The desired effect in human subjects is accomplished by the intentional formation of an arteriovenous fistula distal to the aortic aneurysm, so that the rate of flow is accelerated rather than reduced or rendered nil.

Previous to the proposal of this new approach, all surgical treatments for aortic aneurysm were directed at diminishing the rate or amount of blood-flow through the aneurysm.

Two diagrams, introduced by Babcock, to illustrate the physical principles involved, and others schematically representing the technique of jugulo-carotid anastomosis, are shown in the accompanying slides.

In addition to the case reported by Babcock, eight collective cases of thoracic aortic aneurysm, in which the procedure was carried out, are reported by Patrick McCarthy,² with a total immediate mor-

¹Read before the Orleans Parish Medical Society, May 25, 1931.

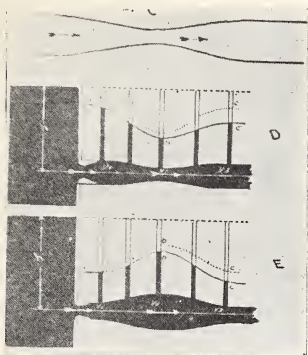


Fig. 1. Hydro-dynamic experiment showing that lateral pressure is lower at points where velocity is greater, i. e. opposite points of constriction.

tality of 25 per cent, and a total mortality up to the time of publication of the report, of 50 per cent. Some very satisfactory results were obtained in the cases which survived operation in this series.

The findings in the cases in which operation seemed justified, and was decided on, in the present series, were:

1. Pain—present in all cases, and in some instances unrelieved even by large doses of sedatives, including morphin, and intravenous amytal.
2. Harassing cough—present in three cases.
3. Orthopnea—present in four cases.
4. Dyspnea—present in four cases.
5. Dysphagia—present in two cases.
6. Loss of weight—noted in all cases
7. Anorexia—marked in two cases and present to a lesser degree in the others.
8. Weakness—present in all cases, and in four of them to a degree which rendered the patient bedridden.
9. Frothy expectoration—present in one case.
10. Nausea and vomiting—present in two cases.
11. Constipation—marked in an abdominal aortic aneurysm case.

12. Expansile abdominal tumor—in one case.

13. Threatening rupture—in two cases.

14. Numbness in the left arm—explained of in one case.

15. Engorgement of the neck veins—particularly marked in three of the cases of thoracic aneurysm, and in one case producing a “cervical caput medusa.”

16. Inequalities in the pulses—present in all of the thoracic aneurysm cases with almost complete abolition of radial pulses in two cases.

17. Interference with circulation through the carotid arteries—present in four cases.

18. Roentgen evidence of aneurysm—seen in all cases.

19. Erosion of the vertebral column—in four cases.

20. Enlargement of the heart—noted in three cases.

The duration of signs or symptoms before operation varied from two months to two years. In some instances, the presence of one or more of the conditions listed above made the operative procedure rather difficult, and required the use of local in all but one case, in which latter, rectal anesthesia was employed.

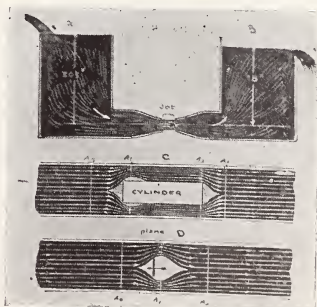


Fig. 2. Diagrams further illustrating absent or diminished wall pressure.

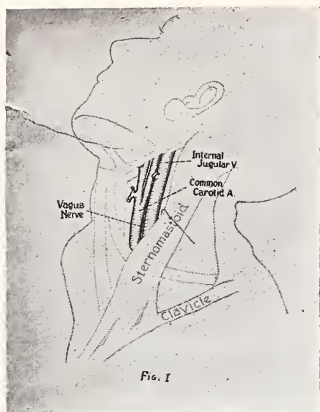


Fig. 3. Illustrating the surgical anatomy concerned in jugulo-carotid anastomosis.

In this personal series, carried out at Charity Hospital, four colored males ranging in age from 30 to 52 years and having aneurysms of the aortic arch, were brought to the operating room with the intention of forming an arteriovenous fistula between the common carotid artery and the internal jugular vein. In three of these cases, it was possible to complete the procedure. One of the latter three patients had marked orthopnea, cough, and pulmonary edema, so that it was necessary to perform tracheotomy in order to allow the passage of a piece of rubber tubing beyond the point of tracheal compression. In one instance, the operation could not be completed, death occurring on the operating table just at about the time the carotid sheath structures had been exposed, and even before trial compression of the carotid artery. Death in this case seemed due to mechanical interference with respiration, incident to having the patient in a semi-sitting, rather than in an erect-sitting position, and to the failure of a damaged heart.

In addition to these cases of thoracic aneurysm, a jugulo-carotid fistula was made in a colored woman 44 years of age, with a tremendous pulsating abdominal aortic aneurysm, originating in the region

of the celiac axis and producing severe pain and erosion of the vertebrae, and being, apparently, on the verge of rupture. Although, in this case, the fistula was made proximal to the aneurysm, it was hoped that some relief would follow lowering of blood pressures, and decreasing the amount of blood-flow through the aneurysm. Even though not utilizing the principles underlying Babcock's procedure, some temporary relief was afforded, and post-operative observations could be made, which were impossible in the thoracic aneurysm cases on account of such factors as interference with circulation through the arch of the aorta, and proximity of the aneurysm to the heart. The formation of a lateral fistula between the femoral vessels, in Scarpa's triangle, would be the more rational procedure in most cases of abdominal aortic aneurysm requiring surgery, in spite of the undesirable venous engorgement of the lower extremities which would result thereby.

A summary of the mortality results in patients in which the operation was completed is as follows: The first patient (George Washington) lived comfortably for eight months following operation, and died suddenly somewhere outside of New Orleans. The second patient, (Clem Mel-

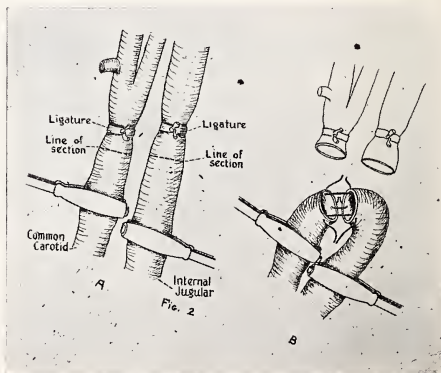


Fig. 4. Showing stages in the formation of the arteriovenous fistula.



Fig. 6. Roentgenogram in case No. 1.

vin), lived three months following operation. The third patient, (Gus Scott), died on the operating table. The fourth patient, (Nettie Jones) the abdominal aneurysm case, lived a little over one month, but showed no remarkable improvement following operation. The fifth patient (Henry Dison) in which it was necessary to perform tracheotomy, to allow completion of the anastomosis, died seven hours after operation.

POST-OPERATIVE OBSERVATIONS.

There were three cases in which post-operative observations could be carried out for some time. The results obtained in these cases were as follows:

1. Functioning arteriovenous fistulae were secured, and these fistulae continued patent until the time of death, except in one instance. An interesting feature noted in this patient (George Washington) was that, even following the spontaneous closure of the fistula, two and a half months after operation, the patient continued to improve and was comparatively free of severe symptoms. The temporary reduction of wall pressure in the aneurysm while the fistula was functioning may have favored reparative fibrosing processes in the sac. A consideration of this feature suggests the possible advisability of subsequent intentional suppression of the fistula in some

cases. McCarthy, in reporting a case in which a similar phenomenon was noted, suggested that the sectioning of periarterial sympathetics when the carotid is divided at operation might account for such an occurrence as this continued relief of pain.

2. Relief of pain was obtained in varying degrees, making it possible to reduce, or discontinue, the use of sedatives.

3. Relief of orthopnea, and lessening of dyspnea, was marked in two patients.

4. Improvement in appetite and gain in weight and strength occurred following operation in the thoracic aneurysm cases, enabling the patients to be up and about, whereas, beforehand they were totally disabled.

5. Marked lessening of cough was prominent in one case (Clem Melvin) in which this symptom had been prominent.

6. Relief of engorgement of the neck veins, was particularly marked in the thoracic aneurysm cases.

Parallel with the results already mentioned, the following collateral observations were made:

ROENTGEN-RAY OBSERVATIONS.

Skiagraphs in these cases, as in most other cases which have been reported, did

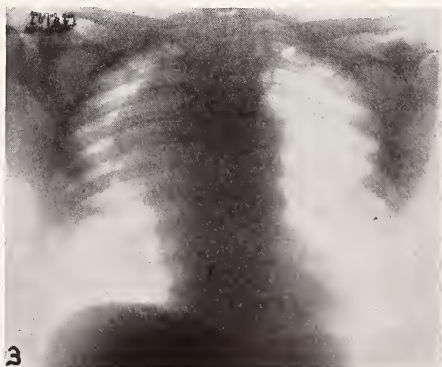


Fig. 8. Roentgenogram in case No. 2 before operation.

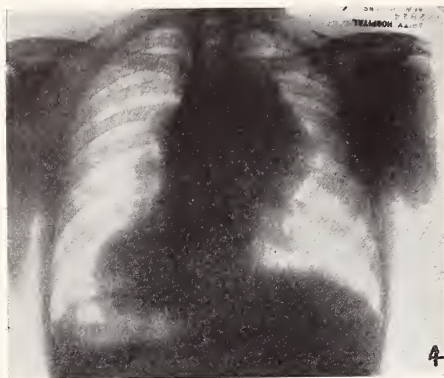


Fig. 9. Roentgenogram in case No. 2 following operation, showing lowering of height of aneurysm.

not show any remarkable diminution in the size of the aortic aneurysm following operation. In two cases in which this was particularly noted, there was an apparent paradox, as the patients were much improved. Considering the rigidity of the wall of the aneurysmal sac, it would hardly be expected that much diminution in size would occur. The relief of pain in these patients would, therefore, seem to be due more to reduction in tension and expansile pulsation. In the skiagrams of one case, however, there was noted a definite lowering of the height of the aneurysm. During the time observations were carried out, roentgen-ray evidences of cardiac enlargement following formation of the fistulae were not marked.

BLOOD PRESSURE OBSERVATION.

In the cases in which satisfactory determinations could be made, a maintained lowering of both systolic and diastolic pressures of from 20 to 30 mm Hg. was noted, the pulse pressures remaining about the same as before the formation of the fistula. This equality of the pulse pressure before and after the formation of the fistula corresponds to the observations of Hoover and Beams, who noted the same blood pressure relationships on compression suppression of some arteriovenous aneurysms, indicating compensation on the

part of the cardiovascular system, for the presence of the fistula. A Corrigan type pulse would indicate lack of cardiovascular compensation or accommodation.

In several cases in this series, interference with circulation through peripheral vessels made blood pressure observations very unsatisfactory or impossible. In the abdominal aortic aneurysm case, attempts were made to obtain occilometric blood pressure readings in the lower extremities, in order to study the effects noted by Hill and Flack, but these determinations were rather unsatisfactory.

ELECTROCARDIOGRAPHIC OBSERVATIONS.

Electrocardiographic tracings were made in several cases and were interpreted as showing no remarkable changes incident to the formation of the arteriovenous fistulae. In one case, there was an increase in the left ventricular predominance already existing before operation.

PULSE OBSERVATIONS.

Two of the patients showed increase in pulse rate following formation of the fistula. In one case (George Washington) the pulse rate before operation was considerably elevated on account of restlessness, the considerable pain which he suffered in spite of sedatives, and his generally poor condition. There was no change in

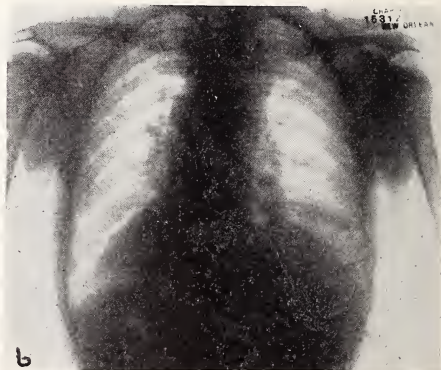


Fig. 10. Roentgenogram in case No. 3 showing associated bronchiectasis.



Fig. 11. Roentgenogram in case No. 4 showing large abdominal aneurysm, and erosion of lumbar vertebrae.

pulse rate following operation in this man, probably because the improvement in the conditions existing pre-operatively resulted in a counter-balancing of the increase in rate which the formation of the fistula would usually produce.

AUTOPSY FINDINGS.

Necropsy was performed on two of the cases. The sites of anastomosis were examined and found in very satisfactory condition, with no thrombosis within the lumens of the vessels. Erosion of the vertebrae was noted, and large aneurysmal sacs filled with blood clots were seen, corresponding in appearance to what would be expected from ante-mortem studies. The hearts in the autopsied cases were not grossly enlarged. The lungs, livers, spleens and kidneys showed rather marked congestion.

COMPLICATIONS.

Complications liable to occur incident to carrying out such a procedure as described in this paper, with suggestions which may minimize, or avert, their development are:

1. Cerebral anemia, or ischemia: poor circulation through one or the other, or both carotids, due to interference with blood flow through the innominate, or

proximal portion of the left common carotid artery, presented a problem in several cases. It has been the practice to make the fistula on the side with poorer carotid circulation, in order to minimize the chances of embarrassing cerebral circulation, even at the hazard of a resulting poorly functioning fistula. In all cases in this series the fistula was made on the right side. Trial compression of the carotid, which it is expected will be used, should always be done, before its ligation, or division.

2. Cerebral embolism may result from thrombosis in the carotid vessel, cephalad to the point of ligation and division. To reduce the likelihood of this occurrence, ligation and division should be done as far as possible caudad to the bifurcation of the common carotid.

3. Injury to the vagus nerve must be guarded against by careful and painstaking procedure.

4. Asphyxia may supervene if the patient is made to lie flat on the operating table, and is especially liable to occur if an attempt is made to place the head and neck in the position which would be optimal for carrying out this operative procedure. To avoid respiratory embarrassment, it is, therefore, necessary in some cases to operate with the patient in a sitting or semi-sitting position. Occasionally, in the presence of marked tracheal compression, a tracheotomy tube must be introduced.

5. A poorly functioning fistula, or spontaneous closure of the fistula, may be responsible for little or no benefit resulting from the procedure. The chance of this occurrence can be reduced to a minimum by careful technique.

6. Hemorrhage resulting from injury to the enlarged, thin walled neck veins, must be guarded against by painstaking dissection. Hemorrhage from the suture line is usually not troublesome, on ac-

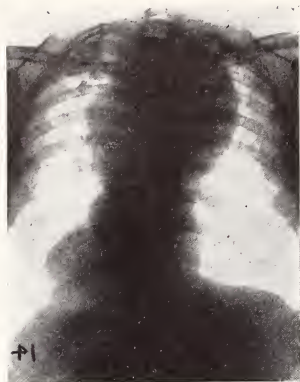


Fig. 12. Roentgenogram in case No. 5. In this case it was necessary to perform tracheotomy to allow completion of the anastomosis.

count of the low pressure in the jugular vein, although sclerotic changes or softening of the walls of the artery and thinness of the wall of the vein, in these cases, call for care in introducing the sutures.

7. Right sided heart failure and pulmonary edema may result from too sudden release of the compression of the carotid artery, so obviously, this must be avoided.

8. Sudden death of the patient, due to over exertion or rupture of the aneurysm, must be insured against by careful handling to and from the operating table.

In addition to the consideration of the difficulties and complications likely to be met with in carrying out this procedure, the untoward cardiovascular effects incident to the existence of an arteriovenous fistula must not be lost sight of. In an exhaustive study, Dr. Matas (3) has reported on the systemic or cardiovascular effects of arteriovenous fistulae, in a paper based on his personal experience and observations in 44 cases. He has also made a comprehensive review of the important literature which has accumulated concerning these fistulae. In this paper he calls attention to the clinically observable cardiovascular ill-effects, produced by such a

fistula, in almost all cases where it has existed for a considerable time, and in some cases in which it has existed for only a short time. The deleterious effects are generally directly proportional to the size of the fistula and its proximity to the heart.

In considering the demonstrable effects of arteriovenous fistulae, Branham's important bradycardic phenomenon is stressed by Matas. Besides the clinical evidences of the effects of an arteriovenous fistula, he alludes to fluoroscopic, roentgenographic, electrocardiographic, and other polygraphic findings, which definitely show cardiovascular changes usually resulting from a functioning fistula.

In the cases in my series, the primary aneurysm had produced, and continued to produce, even after the formation of the fistula, cardiovascular changes which made it difficult to determine what part of the post-operative findings were due to the creation of the fistula. Also, the large size of the aneurysms, the damaged hearts, the interference with circulation through peripheral vessels, and the lability of the cardiovascular system, as well as the general condition of the patient in some in-



Fig. 14. Photograph showing the anastomosis removed from one of the cases at autopsy.

stances, made examinations and observations difficult, or impossible, to carry out and interpret properly. Hoover and Beams, and Le Conte and Oury have attempted to outline criteria by which the cardiovascular changes independent of the presence of an arteriovenous fistula, might be determined.

Whereas, at present, in the instance of the early, or almost symptomless aneurysms, it would seem inadvisable to perform this operation, yet, I believe that if under conservative treatment, cases with aortic aneurysm do not improve, or at least remain stationary, then operation may be justified with the hope of obtaining better results than can be expected in the moribund type of cases which were operated on in this series. At present, there are no definite data to indicate in just which cases, and at just what time, the procedure is indicated, that is what degree of involvement, or rate of increasing severity of signs and symptoms produced by the private aneurysm, indicates or justifies resorting to surgical intervention.

From the very nature of the many factors concerned in aortic aneurysm, it will no doubt be difficult ever to reach reliable constant, and uniformly applicable indications for radical surgery. If carried out too early, we may be substituting a condition just as undesirable as the primary one.

SUMMARY.

1. The method suggested by Wayne Babcock for treatment of aortic aneurysms by the formation of a distal arteriovenous fistula is reiterated, and the rationale of this procedure is considered.

2. The difficulties met with in carrying out this procedure, complications likely to ensue, and the cardiovascular changes produced by an arteriovenous fistula, are outlined.

3. The indication for the procedure is suggested.

4. Several cases in which the method has been carried out are summarized.

5. The formation of a side to side arteriovenous fistula between the femoral vessels is suggested as a rational procedure in cases of abdominal aortic aneurysm in which surgery seems indicated.

CONCLUSIONS.

1. Considering the inconvertible ill-effects frequently produced by an arteriovenous fistula, and the operative risk attendant upon the intentional formation of these fistulae, it is hardly expected that the method will be justified, or serve better than non-surgical handling, in very early cases of aortic aneurysm.

2. I believe that the procedure has a valuable and sufficiently beneficial effect to warrant its application in some cases of aortic aneurysm with advanced signs or distressing symptoms, in which some sort of surgical intervention is called for.

BIBLIOGRAPHY.

1. Babcock, W. Wayne: A new treatment for thoracic aneurysm, *Ann. Clin. Med.*, 4:933, 1926.
2. McCarthy, Patrick A.: Distal arterio-venous anastomosis for treatment of aneurysms of the thoracic aorta and innominate artery, *Ann. Surg.* 91:161, 1930.
3. Matas, Rudolph: On the systemic or cardiovascular effects of arteriovenous fistulae. *International Clinic Vol. 11, Series 35*, 1925.

DISCUSSION.*

Dr. S. Chaillé Jamison (New Orleans): I should like to comment on one of these cases at the risk of anticlimax.

One of these cases came from my service. We have learned after considerable observation of such aneurysms that, just as Dr. Matas said, a good many of them make rather surprising improvement under the proper medical treatment. On the other hand, and it can be demonstrated nearly every day, a great many of these patients

*The remarks of Dr. Matas, who opened the discussion of this paper, have been enlarged and are printed in this number of the Journal as a paper.

simply go from bad to worse, as this particular case did.

Morphine did not relieve him; even to the point where the nurse had to be pumping so much morphine into him that any more would have resulted in death. We could not relieve the patient by any method. Dr. Storck and I talked the matter over. We felt that the man was going to die in a week or so. Dr. Storck suggested this operation and I consented. I thought it only humane to give him some relief, but did not expect any cure. I am sure Dr. Storck did not expect any cure. The patient was sent back to our ward entirely comfortable and stayed so for two or three weeks. He had a definite thrill near the site of the arteriovenous fistula, which eventually disappeared. The fistula had not closed for several weeks. The relief to this particular patient was very striking.

I submit to you that it takes a very brave man to say that more than one per cent of aortic aneurysms are going to get well, and most of those that we see not only die, but they die a miserable death, and we cannot keep them from dying miserably. I submit to you that a death from congestive heart failure is far easier and more gentle a death than one from the horrible pain of aortic aneurism.

I believe this procedure has a real place until something better is shown to us.

Dr. Ambrose H. Storck (closing): I hope I have made it clear that I have not advocated or carried out this procedure except in cases suffering from very distressing symptoms. I think we all agree, and it has been well demonstrated, this procedure results in substituting a condition as bad as the primary one, if done in early cases. It is only in cases where relief cannot be afforded by sedatives or other medical treatment that this procedure should be applied. In these cases I think reduction in pulsation and reduction in tension certainly have relieved a few patients temporarily.

I believe this procedure is in a category with such palliative operations as gastrostomy in cases of obstructive lesions of the pylorus, or sigmoidostomy or cecostomy in obstructing carcinoma of the rectum.

ON THE TREATMENT OF AORTIC ANEURYSM BY THE METHOD OF JUGULO-CAROTID ANASTOMOSIS: A DISCUSSION.*

RUDOLPH MATAS, M. D.,

NEW ORLEANS.

The operation for the cure of aortic aneurysm, which Dr. Storck has fully described, is based on the novel principle that, by transferring the volume, force, and velocity of the arterial current to the venous system, the general arterial tension will be diminished and the intra-aneurysmal pressure correspondingly reduced. This is accomplished by creating an arterio-venous anastomosis by an end-to-end suture between the common carotid and the internal jugular vein. In this way, the arterial current which carries one half of the supply of blood to the brain is short circuited and poured directly and entirely into the veins. The immediate effect of the inpour of the whole volume of carotid flow into a vein, so close to the heart as the internal jugular, is to increase the volume, the speed, and the tension of the venous current as it enters the heart. With the increased volume and velocity of the venous stream, the intracardiac pressure in the right side of the heart is proportionately increased and the heart reacts to this hypertension by dilating its cavities and quickening its pace. Since increased input must be followed by increased output, in order to maintain the balance of the circulation, the work of the heart is increased in transferring the burden from the right to the left side. Again the work of the heart is increased to force an added volume of blood into the aorta in the effort to supply the distant parts, which would suffer through the fall in the arterial blood pressure, caused by the blood lost at the anastomosis. The immediate result is

*Transcript of the stenographic report of the discussion following the reading of Dr. Ambrose Storck's paper at the meeting of the Orleans Parish Medical Society on May 25, 1931. Read and approved by the author.

the dilatation of both sides of the heart, followed by compensatory hypertrophy.

An accelerated heart beat and a lowered arterial pressure are the reactions which testify to the extra labor imposed upon the heart, provided the heart is normal and healthy enough to react to the sudden strain put upon it.

Cardiac changes are the more marked the nearer the arterio-venous communication is to the heart and the greater the volume of arterial blood that goes through it.

We should also remember that in aortic aneurysm the heart is almost invariably diseased and is not capable of compensating for this extra labor as in normal individuals. This fact determines the duration of the period of adjustment to the new conditions. Sometimes the heart fails altogether after a brief attempt at adjustment, in others the mechanism of adjustment is prolonged for a more or less greater length of time, depending upon the nutrition and resistance of a robust myocardium. But ultimately all cases of arterio-venous fistula of large size, involving the vessels close to the heart, suffer from myocardial decompensation. As well demonstrated by Lewis and others, the cardio-vascular effects of an established and large arterio-venous communication are identical clinically and pathologically with those of aortic regurgitation, and, as occurs in this condition, the myocardium suffers retrogressive changes from an insufficient coronary supply.

The work that has been done in this field in recent years is immense and constitutes one of the most important acquisitions of modern cardio-vascular pathology. We now know that, when an arterio-venous fistula is established experimentally or as the result of congenital, traumatic or pathological conditions, the foundation is laid for a cardio-vascular disease which is the end terminates fatally. We have also learned that these systemic cardio-vascular

effects constitute, and have come to be, one of the most important indications for the early surgical treatment of arterio-venous aneurysm.

There has been much discussion as to the mechanism by which an arterio-venous fistula damages the heart and ultimately the whole vascular system. But there can be no question regarding the clinical fact that a reversal of the circulation through a free arterio-venous communication between a large artery and vein, especially when near the heart, will lead to definite, degenerative cardio-vascular lesions, which ultimately prove fatal.

Quite apart from the mass of experimental evidence which has accumulated on this subject, the vast experience of the world war in traumatic arterio-venous aneurysm has furnished the material for a conclusive demonstration of this clinical fact. We need go no further than my own numerous observations at the Charity Hospital, as I have recorded them in various publications, to prove that the human organism can never be indifferent to the damaging effect of a reversal of the circulation through an arterio-venous fistula.†

It is, therefore, surprising that, with the probable exception of Dr. Storck, the advocates of this operation have paid little or no attention to this vital phase of the question.

The conclusion that we derive from this discussion is that the surgeon, in attempting to decompress an aortic aneurysm by this procedure is adding a new pathologic state to that already existing, which, in the long run, if the patient survives the operation, will prove as dangerous to life as the aneurysm which it was intended to relieve.

Apart from the secondary cardio-vascular evils that result from the establishment

†Matas, R. On the systemic or cardio-vascular effects of arterio-venous fistulae. *Int. Clinics Series*, 2:1925, 55-101.

of a large arterio-venous anastomosis, there are primary and immediate dangers in its performance which cannot be overlooked. It is notorious that fully 10 to 25 per cent of the ligations of the common carotid arteries after middle life are liable to fatal cerebral complications. And this is particularly true of the syphilitic and arterio-sclerotic patients who develop aortic aneurysms. It is not surprising, therefore, that some patients have died on the table when half of the arterial supply of the brain had been suddenly cut off by the division and ligation of the carotid necessitated by this procedure. To provide against this risk, no patient should be operated on in this way without first testing the efficiency of the collateral circulation of the circle Willis by some of the methods that I and others have devised for this purpose; a preliminary precaution which has not yet been done in any case of this operation that I have seen reported.

But, outside of the cardio-vascular pathology that is initiated by this operation, the most important question is that which relates to the effect of the operation upon the aneurysm itself—i. e., what *curative* effects can be expected from it? The claim is made that, by increasing the velocity of the blood stream flowing through the sac, collateral or expansile pressure in the aneurysm is diminished. It is presumed that, in this way, the intra and extra aneurysmal pressure effects are relieved, that the risk of rupture is minimized.

But, even if this relief is obtained, which is far from certain in every case, such symptomatic relief can only be more or less temporary, as long as the aneurysmal disease is not cured. In considering this phase of the question, we are told that the chief curative merit of the operation lies in the fact that it increases the velocity of the bloodstream in the aneurysm, which is contrary to everything that we have learned in the past of Nature's mode of cure. Nature's method is to obliterate the

aneurysmal sac by gradually filling it with clot. This is accomplished, when the conditions are favorable, by a retardation or slowing of the current which in turn favors the deposition and stratification of the active or laminated clot and it is this clot which ultimately cures the aneurysm. When aneurysms are cured spontaneously, it is primarily by stasis and not by increasing the velocity of the circulation in the sac, and this reasoning applies to all aneurysms but is most obvious in the sacciform aneurysms, which constitute the great majority of those developed in the aorta.

Whatever has been done therapeutically in the past for the cure of aortic and other surgically inaccessible aneurysms has been directed at retarding the circulation and putting obstacles in the way of the blood stream in imitation of Nature's process. In dealing with aortic and other inoperable aneurysms, rest and diet are fundamental principles. Rest in bed to slow the pulse and reduce the arterial tension. This is the basis of the dietetic treatment which originated with Valsalva, Billingham, and Tuffnel in the eighteenth and early nineteenth centuries. These reduced the fluid and food intake to a minimum compatible with life. To these treatments frequent bleedings were added to lower the activity of the circulation. By these means, the viscosity and coagulability of the blood was also increased, thus favoring the deposition of clot. While these treatments have been modified in our times by excluding the blood-letting and lessening the severity of the old regime, the fundamental principles remain the same.

In this connection, I am reminded of an old story which tells how Valsalva, one of the most famous of the Italian physicians of the eighteenth century, cured some of his aneurysm patients by starving them. Valsalva was holding a clinic on the medical treatment of aneurysm at Imole. A poor peasant with a large aneurysm of the neck, probably an inominate or carotid,

was one of the subjects of the lecture. The man listened attentatively when the teacher said that some aneurysms could be cured by diet and rest, provided the patient would endure the hardship of the treatment. Little sips of water, a few spoonfuls of claret, a dry crust of black bread, and a bite of dry meat here and there—just enough to keep body and soul together—with flat rest in bed—that would cure an aneurysm in the right sort of man. About six months after, he was surprised to see an emaciated man come up to talk to him, then kneel down before him and kiss his coat. Valsalva said, "What is the matter?" To which the patient said, "Why, don't you know, *caro professore*, you have saved my life?" "What did you do?" queried Valsalva. "Just what you said," replied the patient. "Just starved and stayed in bed." The aneurysm had subsided and no longer pulsated in the neck. This may be a good story, but it illustrates the fact that aneurysms can cure spontaneously; and there are too many well authenticated records of cures in the history of the famous old Dublin masters, Tuffnel and Billingham, and others, to doubt that diet and rest will do it.

It seems to me quite apparent that the increased velocity of the blood stream, obtained by the jugulo-carotid anastomosis, can only serve, if it is at all effective, to counteract the natural tendency to the deposition of laminated clot, which is so necessary to reinforce the stretching sac and protect its walls as a buffer against the constant impact of the systolic wave and otherwise aid in Nature's defensive work. While we fully realize that the ideal conditions which favor the spontaneous cure of aneurysm are difficult to obtain, and that for this reason spontaneous cures are relatively rare, we do not see how the new method has in any way improved the prospect of cure in this disease.

Much stress has been laid by the advocates of this operation on the symptomatic relief to a few of the patients who have survived it. But how many have survived

it, how long have they survived, and how long has this symptomatic improvement been maintained? An inquiry into the facts is not calculated to make us enthusiastic as to the final results. As far as I have been able to ascertain, Dr. Babcock performed the first operation on September 21, 1925, consequently the first operation performed by this method is not more than five years old. This patient was reported by Dr. Babcock as so much improved after the operation that he had been able to return to his work as an automobile mechanic. He reported this case five months after the operation, but he then commented that the "patient had some return of pain with increased blood pressure, but this did not prevent his doing active work." The ultimate fate of this patient is not known, at least Dr. McCarthy, who quotes this case in his comprehensive paper on this operation, published in the *Annals of Surgery*, February, 1930, gives us no information as to the end results. Dr. McCarthy himself reports eight patients operated by himself and other surgeons in Philadelphia. Of these, four died, two immediately, practically on the operating table, and two shortly after the operation (25 per cent immediate, and 50 per cent total mortality). Four patients had survived a period of five to seven months at the time of the report, two sufficiently relieved to return to their work, but judging by the reports, there is no proof that in any of these the aneurysm was cured; and it is now eighteen months since Dr. McCarthy's report was published, it is not certain what the final fate of these patients has been. Dr. Storck, who operated on five patients, including one incomplete operation, tell us frankly that none of these is living at present, despite the marked symptomatic improvement that followed in some of his cases.

To sum up the evidence, as far as obtainable, there is a total of thirteen operated cases, with five survivals of five to seven months, but with no certainty of their fate

since the date of their publication (February, 1930). This certainly is not a showing that would seem to justify the statement that this operation "may revolutionize the treatment of these cases," or that "it is safe to prognosticate that this operation (in earlier cases) will be of immense value in heretofore hopeless aortic aneurysm." (McCarthy.)

The same claims and hopeful expectations have been held for many other methods of treatment, which are based on an entirely contrary principle. The same symptomatic relief has been claimed by many of the older and discarded medical and surgical methods of treatment—aneurysms treated by diet and rest (Valsalva, Tuffnell, Billingham), distant ligations (Brasdor, Wardrop, Guinard), wiring and electrolysis (Moore-Corradi), and even simple subcutaneous gelatin injections (Lancereaux)—have yielded proportionately a far greater number of symptomatic cures and seemingly permanent cures than by the method which is now under discussion, and certainly with infinitely less risk to the patient.

Why even Albert Abrams, the celebrated author of "Spondylotherapy" and the electrotonic treatment, claimed that by simple percussion over the seventh cervical vertebra he had been able to give symptomatic relief and cured aortic aneurysm in a far greater number of cases than had been recorded by other methods of therapy.

None the less, a great majority of the patients symptomatically relieved ultimately die of aneurysmal disease.

Many fallacies underlie the symptomatic cures. In many cases the relief is only temporary and often only psychic. One of the observations made by Dr. Storck is impressive. In one of his patients, who had apparently been much relieved by the operation, it was found that the anastomosis had been occluded by a thrombus and had ceased to function while the patient

had claimed great relief. I am satisfied that in several cases the patients on whom I have used Colt's method of wiring in thoracic and abdominal aneurysms the temporary relief expressed by the patients has been largely due to the new hope given them by the operation. We should remember that often changes occur spontaneously in the interior of the sac which retard its progress and prevent its development. It is not at all rare to see working men and women with advanced aortic aneurysms return to their work after a period of hospital rest and symptomatic treatment and continue their laborious tasks for weeks and months without serious complaint and yet without undergoing any sort of palliative operation.

Because a patient survives months and years after an aortic aneurysm has been established does not mean that the aneurysm has been cured. Many of these remain probably latent and are fairly well tolerated despite the active occupations of the patient. I well remember the case of a German tailor, aged 54, whom I attended 30 years ago for a very large aneurysm involving the whole arch of the aorta. He survived the disease for over eight years after I had recognized it. Despite marked pressure signs and symptoms, and long periods of intrathoracic pain, spasmodic cough and dyspnea, he invariably rallied and resumed his work and continued to attend his customers in his shop, until about 2 weeks before his death, when periods of severe paroxysmal pain and dyspnea came on. He would rest for one or two weeks, fast on a very low diet and take large doses of potassium iodide which had a very happy effect in relieving his pain and cough. Only occasionally was a hypodermic of morphia required to give him rest at night. He invariably rallied from these periodic attacks and returned with remarkable activity and cheerfulness to his work.

Sometimes a clot is detached which blocks the outlet of the sac; or the tumor,

in growing, compresses the proximal or distal trunk of the artery that supplies it and in this way the circulation of the sac is reduced. More often it is the gradual deposition of laminated clot in the walls of the sac that strengthen these at the weakest points. Dr. G. H. Colt, of St. Bartholomew's Hospital, London, has published (1927)¹ the most complete study of the life history of the aortic aneurysms. This great work embraces the statistics of 1202 aortic aneurysms, collected from the clinical and autopsy records of a series of British hospitals. Of these cases, some 707 were of the saccular type, 503 occurred in male subjects of an average age of 42.04 years in whom the average duration of aneurysmal life was 19.13 months. In 72 saccular aneurysms in women, of the average age of 40.22 years, the life period averaged 22.27 months. In 112 abdominal aneurysms, in patients of the average age of 35.95 years, the average life duration was 18.12 months. At the age of 60, the expectation of aneurysmal life is twice that at 35. In 37 thoracic aortic aneurysms, the duration varied from 50 to 180 months. In six abdominal aneurysms, the deviation from the average was from 50 to 132 months. The experience in this series, therefore, ranges from four to fifteen years. There are a number of cases reported in the literature in which the duration of life has been prolonged ten, fifteen, and twenty years. Recently Sir W. I DeC. Wheeler, of Dublin, reported a patient who had survived seventeen years and seven months. I have one instance in my own experience in which the patient survived over fifteen years. This was the case of a medical friend who came to me with an aneurysm of the ascending aorta. The aneurysm was causing severe pain and other distressing symptoms and seemed to be advancing rapidly. Fluoroscopic examination revealed a large saccular aneurysms of the ascending arch. I adopted Guinard's distal ligation of the common carotid and sub-

clavian arteries but substituted a removable aluminum band for the ligature on the common carotid. After waiting a week, and no cerebral disturbances appearing, the carotid band was allowed to remain as a ligature and another band was applied to the third portion of the subclavian. The pain subsided and the patient returned home much relieved. He kept a drug store and for a while was wheeled about in a rolling chair, which he soon discarded, and he gradually resumed his normal activities. He came to see me about a year later, when, on radiological examination, the aneurysmal sac was seen much contracted and hardened, judging by the diminished pulsation and greater density and opaqueness of the aneurysmal shadow. I heard from him at intervals for fifteen years and was beginning to believe that he had been cured, but last summer, 1930, I received the announcement of his death. He died after an acute thoracic illness of short duration. There was apparently no rupture, but as there was no autopsy I am not certain that it was the aneurysm that caused his death, though I believe it was.

Nowadays we have the fluoroscope and the radiograph, and a sure diagnosis can be made early, at which time it would seem theoretically most desirable to operate. Surely if any operation is to yield curative results in aneurysm it is infinitely better to act before the sac has grown so large that it crowds and compresses the vital organs in the thorax or before distressing symptoms develop which would enormously complicate any operation in the neck, especially, one so delicate as an arterio-venous anastomosis of the jugulo-carotid vessels. Suppose we are dealing with an early incipient case in which there are no urgent or distressing symptoms. Suppose we operate by this method and the patient survives. What hope can we offer to compensate for the risk of an operation which gives no assurance or definite prospect of permanent cure; one which positively adds a new cardio-vascular pathology to that

1. Colt, G. H.: Clinical duration of saccular aortic aneurysm in British-born subjects. *Quart. Jn'l. Med.*, 20:331, 1927.

which already exists and which, in the long run, will prove as fatal to the patient as the aneurysm itself? When there are no urgent and distressing symptoms, as in the very early cases, we cannot even justify the procedure as a palliative or temporary means of relief since there are no urgent symptoms to relieve.

It seems quite clear that the evidence brought forward in support of this operation as a curative procedure has no facts to prove its superiority over other methods of medical and surgical therapy that are now current in practice.

In dealing with advanced cases, when thoracic pain, tracheal tugging, and other pressure signs and symptoms have made their appearance in the lugubrious scenario of the terminal stages of the disease, it might seem permissible to perform the operation in the hope of relief by a temporary decompression of the aneurysmal sac, just as we would perhaps perform a tracheotomy for temporary relief in case of inoperable cancer of the larynx. Under these circumstances, the older surgeons of the seventeenth century lowered the arterial tension by bleeding. This sometimes had a very palliative effect. The present suggestion has the theoretical advantage of bleeding the patient in his own veins, but in so doing his heart is encumbered by a venous plethora which may fail to relieve and prove fatal.

Waiving all these objections, the performance of an end-to-end vascular suture under these trying circumstances is no simple matter. In proof of this, we see that over 25 per cent of cases have died in the operative act. When there is tracheal tugging and the sac compresses the veins at the root of the neck, the bleeding is copious and can be controlled only by encumbering the field with many hemo-

stats. The isolation of the carotid and jugular, sufficiently to permit of secure approximation and suture of the vessel ends, while the patient is gasping for breath, are all phases of the work which at times bristle with difficulties. It is quite a neat bit of surgery to do and it is only those who have been seasoned by long experience to this kind of work who can appreciate not only the technical merit in the performance, but the calm deliberation and patience required to bring it to a successful issue. Dr. Storck, a young surgeon, has had the enterprise and the ability to carry out this procedure successfully under the most trying circumstances, in not one, but in four cases. I congratulate him most heartily. I am also pleased to note that he has been modest in his appraisal of the value of this operation. Certainly much less assertive or dogmatically optimistic than others who have preceded him with less personal experience to back them.

CONCLUSION.

I trust it will be well understood that, while I see little to commend in this operation, either in theory or in practice, I am far from condemning the enterprise of the distinguished surgeon who devised it or of those who followed his example. They have all been actuated by the very commendable desire to improve the conditions of the unfortunate victim of aortic aneurysm, a disease which is appalling in its frequency and mortality. What we are looking for, however, are facts, and I am sorry to say that the facts are against the operation. Medicine and surgery can still do much for these unfortunate patients, but the greatest hope for their redemption lies in the prophylaxis and treatment of the disease—syphilis (syphilitic aortitis), which is chiefly responsible for the existence of aortic aneurysms.

THE CANCER CONTROL PROGRAM.*

J. W. COX, M. D.,†

NEW YORK.

HISTORY OF PROGRESS.

The records of thirty years give ample evidence that the control, cure and prevention of cancer up to the present time have depended entirely upon the education of the medical profession in the known and well established methods of diagnosis and treatment and upon the getting of correct information on the earliest signs of cancer to the people, so that when warned they will seek examination and treatment without further delay from the best informed medical talent available. When both the medical profession and the public were ignorant, cancer throughout the world was a hopeless disease.

One has only to read the records of the great surgical pathologists to learn that before 1890, because of the ignorance of the public and the incompleteness of the radical operation by surgeons, cancer was rarely cured and never prevented.

Between 1890 and 1900 the radical operation for cancer was developed in practically all of its details. During this decade the dissemination of the details of the operative technic for cancer was very widespread, but the people were still ignorant. For this reason well trained teams in well equipped hospitals rarely accomplished a cure because the attack on cancer took place at a late and incurable stage. Up to 1900 the mental vision of most operators was limited to diminishing the operative mortality and to eliminating wound infections.

Following 1900 the bookkeeping of the final results began in a few institutions

* Read before the Section on Hygiene and Public Health at the Sixty-fourth Annual Session of the Mississippi State Medical Association, Jackson, May 13, 1931.

† Field Representative of the American Society for the Control of Cancer, New York, N. Y.

like Johns Hopkins Hospital. Since that period Dr. Joseph Colt Bloodgood has made a continuous and careful study of these records. As early as 1900 he pointed out that the few living five year cases proved to be bright lights demonstrating the two great factors in the operative cure of cancer—early intervention and the anatomically complete removal as based on the knowledge of the pathology of the local growth and its possible infiltrations. In 1902 and again in 1910 Dr. Bloodgood made similar summaries. In his 1910 summary he was able to show a distinct improvement in the per cent of five year cures. One factor, the need for early intervention, became more evident than ever.

Up to this time there was no effort on the part of the medical profession as a whole to instruct the public on the necessity of knowing the early symptoms of cancer. In 1913 the American Society for the Control of Cancer was formed by a group of pioneers working in the cancer field. Immediately the Society began its work of broadcasting the correct information in regard to cancer. Dr. Bloodgood states "that since 1920 the improvement in the per cent of five year cures has been so great and startling in those communities in which the educational campaign has been most intense that there cannot longer be any doubt that, until we find a specific cure or preventive for cancer, the only method of control is through the education of the public."

In 1915 radium was beginning, both in this country and abroad, to be used experimentally as a potential weapon against cancer. Its early use was confined to advanced and inoperable cases. Dr. Forsell of the Radiumhemmet at Stockholm, who began the treatment of cancer of the uterus by local application of radium salts in 1910, was able to record statistically in 1920 the five year results of the inoperable cases treated during 1914 and 1915. His report to the Swedish Gynecological Society re-

sulted in a statement from them that for the time being they would cease to operate upon cancer of the cervix, thereby giving radiotherapy a chance of showing its worth. Since then only a few radical operations for cancer of the cervix have been performed in Sweden. Other clinics were not as fortunate as the Stockholm clinic. In order to secure a satisfactory number of cases from any one site for a statistical study cases were accumulated from 1915 to 1924. Usually each institution was interested in a different technic. Thus it was not until 1928, five years after the series closed, that many clinics began to release their first worthwhile statistical data on a comparatively large series of cases. These data were usually tabulated under the headings: operable, borderline, inoperable and all cases. The five year survivals were computed under each heading. Under carcinoma of the servix the results from the Curie Foundation in Paris are as follows:

(Early)	—Stage I	42 %	5-year cures
(Borderline)	—Stage II	28 %	" "
(Inoperable)	—Stage III	10 %	" "
All cases)		20 %	" "

These figures correspond pretty generally with the results that are being obtained by skilled workers throughout the world.

High voltage therapy, which began about 1918, had the same small beginnings and period of statistical trial as did the use of radium. The results accomplished through its use in skilled hands, either alone or in combination with surgery or radium, give it distinct and high value.

THE AVERAGE CANCER CASE.

Although the entire world has received these favorable reports through their newspapers, the average case of cancer has received little benefit. Anxiously and hopefully it has waited for the general medical profession to orient itself and change theory into practice. If individual effort on the part of a few could have applied this knowledge the problem would be well in hand today. However, few men have found their train-

ing, experience and knowledge to be self-sufficient. On the other hand, highly specialized men with minds sharply focused on the effectiveness of the services rendered, have produced the most satisfying results. Nowhere has this fact become so firmly established as in the cancer control research work and in the services rendered in certain cancer hospitals.

It is evident, from various cancer studies in the United States, that the part now played by the average physician and by the average hospital will have little effect in reducing the rising incidence of and the death rate from cancer. Communities without the stimulating leadership of specialists doing cancer research work lag far behind in their care of the cancer patient. Rarely do hospital authorities on their own initiative seek to combine the present day knowledge of cancer with the skill of specialists. The feeble pleas for adequate facilities and equipment made by the few understanding physicians and surgeons and by a minority of the members of the hospital staffs, are usually received with diplomatic gestures. The underlying causes for the refusal are usually due to the ever threatening deficit which prevents nearly every hospital from accomplishing its best work and to the apathy of the average medical man on the subject of the control of cancer.

The results in these communities are practically the same as those of twenty-five years ago. The average physician lives in the average community. He sends his patients to the average hospital, which lacks the necessary facilities and equipment considered necessary in 1931 for the effective treatment of cancer. The results produced are discouraging. The experiences encountered offer little encouragement to the average physician and surgeon to build up a faith in the possible control of cancer.

Physicians in large cities having access to hospitals with adequate facilities fre-

quently are as pessimistic as their brother physicians in poorly equipped hospitals. In most of these better equipped hospitals cancer patients lose contact with the hospital soon after treatment. Little or no effort is made by the hospital authorities to advise and guide the discharged patients. Thus the quality and effectiveness of the services offered them can not be judged at a later date. The cures effected can not be determined. Occasionally the obituary of a former patient is brought to the physician's attention. The stimulating effect of knowing his successes is denied him.

The cause of the pessimistic view entertained by the staffs of well equipped hospitals is usually found to be in the condition of the patient admitted. Patients who are admitted moribund and those who refuse treatment or fail to cooperate are few in comparison with the large number (75 to 98 per cent) who procrastinate in securing a diagnosis and treatment.

Less than 2 per cent of the cancer patients in Delaware report early for treatment. The figures for certain cancer hospitals in Philadelphia and New York are 4.2 per cent and 25 per cent respectively. In cities in which only 2 or 4 cancer patients out of a possible 100 seek effective treatment early there is little opportunity for the services offered to be effective. Thus the most serious difficulty is that of getting cancer patients at the earliest stage of the disease into the hands of those competent to make a diagnosis and expert in the treatment of cancer. Such skill is difficult to acquire and is not widely possessed.

THE GENERAL PROGRAM.

In order to cope with the deficiencies in the cancer services offered by general hospitals, the American College of Surgeons and the American Society for the Control of Cancer have pledged themselves to a definite program relative to their respective fields.

ORGANIZATION OF SERVICE FOR THE DIAGNOSIS AND TREATMENT OF CANCER IN GEN- ERAL HOSPITALS.

Cancer clinics in general hospitals is the type of service which the Committee on the Treatment of Malignant Diseases of the American College of Surgeons believes to be the most effective method immediately available for improving the treatment of cancer throughout the continent and for diminishing its present mortality.

While conditions differ markedly in different portions of this country as to the resources available for the diagnosis and treatment of cancer cases, it is certain that for many years to come the vast majority of such cases in this country will be dependent upon the general practitioner, not only for the primary diagnosis of cancer, but for the subsequent treatment of the disease as well. With our present resources of surgery and radiation the majority of cases of early local cancer can be cured, whereas the advanced cases can receive no more than palliative treatment.

The reason for the organization of these special cancer clinics is primarily the fact that the field of cancer diagnosis and cancer treatment has developed so widely in the past few years that only by the organization of a group of representatives of the different departments of the hospital can the full resources available at the present day for the treatment of cancer be made accessible to the individual patient. Many general hospitals are equipped with material and apparatus needed for the treatment of cancer, including high voltage roentgen-ray and a sufficient amount of radium, but a separate organization is required to make this equipment available for the cancer patient and to secure the necessary consultation and cooperation from the different members of the hospital staff who are interested and competent in this field.

The additional expense involved in the maintenance of such a clinic in a hospital with adequate physical equipment is im-

material, consisting chiefly of clerical and social service cost. It involves merely a redistribution of the hospital in such a way as to bring the cancer cases into the hands of those members of the staff most interested in this work and best equipped to carry it on.

A general hospital without adequate physical equipment and specialized personnel should not engage in this type of service without careful consideration. Economics can not be practiced in cancer work without detriment to the quality and effectiveness of the service offered. In addition to physical equipment a well trained team of five to ten specialists is required. These specialists include the following: clinician, tissue pathologist, gynecologist, radiologist, and a general surgeon, unless the field of surgery can be subdivided into the various specialties. The cancer service should be headed by an executive of wide training and experience in the diagnosis and treatment of the disease, and one who can work with and co-ordinate the activities of all departments.

Such a plan does not necessarily involve segregation of cancer patients in one ward, but merely some supervision of the general treatment of cancer and especially the follow-up. The service must function both as a department of the out-patient division for ambulatory cases and for the house service. All tumor patients presenting themselves in the wards and in the out-patient departments should be included in this service.

Representatives of surgery and of roentgen-ray and radium therapy are associated in its conduct. New cases are discussed by representatives from these departments, and a plan of treatment, whether surgical or by radiation or otherwise, is determined upon.

Many of the special operations and treatments advised are performed in the hospital by members of the tumor staff,

but operations of a standard nature are frequently left to the regular surgical department of the hospital.

Better provision should be made for a system of record-keeping and analysis than that which is commonly found in general hospitals.

Regular conferences of the entire staff should be held to discuss important cases, to determine the method of treatment, to observe the results of treatment, to analyze the causes of death and to determine the policy of the service.

In general, a cancer clinic of this nature should be conducted in such a way that its services are available not only for charity patients, but for those who are able to pay in part or in whole the customary hospital and professional fees. To increase the educational value of this service, physicians in private practice should be encouraged to bring their patients to the clinic for consultation, and in any case a report should be sent back to the physician in regard to every case which he sends to the hospital. His co-operation should be secured and maintained in the subsequent periodic examination and treatment of the patient.

An otherwise good cancer service becomes a failure unless an efficient social and nursing follow-up is maintained. This service is indispensable.

The movement for the organization of such a clinic may originate within the hospital; it may be developed in response to the demand of the local medical profession for improved service in regard to cancer cases; or it may be promoted by such national organizations as the American College of Surgeons and the American Society for the Control of Cancer. However it originates, such a clinic, if organized in accordance with these general principles, may become a part of the co-ordinated system of cancer clinics in which the

American College of Surgeons is interested and to which the College stands ready to give its assistance and general supervision.

FIELD EDUCATIONAL ACTIVITIES.

The partition of field educational activities in regard to cancer has been fairly well agreed upon by the American Public Health Association, the American Society for the Control of Cancer and the American Medical Association.

The collection, tabulation, the analysis and the presentation of local statistics relative to cancer has or should become a duty of the city and state Health Departments.

The education of the public has been assumed by the American Society for the Control of Cancer.

The task of the education of physicians with respect to the latest and most effective means of diagnosing and treating cancer is primarily in the hands of the cancer committee of the state and local medical societies.

In order to co-ordinate these activities, a definite program should be initiated by this tri-partite group. Although a suggestive skeleton program is outlined here, one must not lose sight of the fact that the program planned should seek to solve the particular problems incident to the particular state or community: in the last analysis this would mean, before a program could be instituted, a detailed study of fundamental cancer facts relative to the incident of the disease and of the groups existant for the study and effective diagnosis and treatment of the disease, should be planned.

Studies of this nature have been carried out in various states and cities by the tri-partite group. The facts resulting and the ways and means discovered should decide the method of attack on the cancer problem. There are, however, certain states composed essentially of a rural population in which there are no large cities: and in which there is as yet evidently no hospital

with adequate physical equipment for the treatment: states also exist in which the state legislatures already is subsidizing hospitals: the tri-partite group in these states has found it desirable and feasible to ask their state legislature to appoint a fact finding cancer commission. This commission is usually so constituted as to include the members of the tri-partite group. In all these matters a field representative of the American Society for the Control of Cancer stands ready to be of assistance if desired.

STATE PROGRAM FOR THE PREVENTION AND CURE OF CANCER.

A suggestive program of work to be carried on by a state tri-partite group.

A. For the State Health Department.

1. To make surveys to determine the character and extent of the cancer problem within its territory, including the actual number of deaths and cases;

2. To compile cancer statistics covering the tabulations of deaths by organ, age, sex and race;

3. To provide for pathological examinations;

4. To co-operate with hospital authorities, the medical profession, dentists, nurses and the general public in plans for the improvement of the medical and nursing services which are available for cancer patients;

5. To adopt as a working guide to the activities in the field of cancer control the report of the American Public Health Association entitled "What Official Public Health Agencies Should Do About Cancer" and the survey schedule and appraisal form of the American Public Health Association.

B. For the State Medical Profession.

1. Through its State Medical Society to appoint a chairman of its Cancer Committee, whose duty it shall be:

- a. To prove to the family physician

the necessity for early diagnosis and skillful treatment of cancer;

- b. To co-operate with the State Health Officer and the State Chairman of the American Society for the Control of Cancer to the end that definite results be accomplished in accordance with the recognized ethics of the medical profession;

2. To refer promptly cases which they do not diagnose or treat to cancer specialists or institutions;

3. To keep better records of cancer cases and be more accurate in assigning the causes of death;

4. To plan the establishment of adequate cancer clinics in general hospitals;

5. To read papers and hold symposia at county and state medical society meetings;

6. To institute post-graduate cancer instructions.

C. *For the State Chairman of A. S. C. C.*

1. To co-operate with the State Health Officer and the Chairman of the Cancer Committee of the State Medical Society;

2. To teach the public the early signs of cancer and to teach them how to seek skillful medical attention;

3. To teach the public the value of periodic examinations.

The American Society for the Control of Cancer.

Will furnish the Health Department, the Medical Society and the State Chairmen with:

- a. Pamphlets;
- b. Exhibit Material;
- c. Moving Pictures;
- d. Newspaper articles;
- e. Advice through its field representatives.

SURGERY IN THE PREVENTION OF DISEASE*.

T. E. ROSS, JR., M. D.,
HATTIESBURG, MISS.

The practice of preventive surgery is old. In the voluminous case histories of Hippocrates, it is recorded that pulling a diseased tooth cured a patient of rheumatism. He, no doubt, simply considered this a remedy for the present evil, for it is only within comparatively recent years that we have learned to look on such procedures as also preventive. Certain operations are only employed to avoid an immediate mortality, irrespective as to their curative value, such as tracheotomy or ileostomy. Other operations might be purely preventive, for instance, circumcision. But surgery in the prevention of disease is in most instances also curative of some minor or major pathological condition, as an example, tonsillectomy.

The two greatest fields of preventive surgery have to deal with focal infections and malignancies. Dr. Charles Mayo has said that eliminating accidental destruction, 86.5 per cent of all human mortality is due to acute or chronic infections. With many of the acute infections, the surgeon is not primarily interested; but, with the chronic focal infections, the surgeon is vitally concerned. He knows that a small obscure localized focus may cause serious consequences, that metabolic changes occur, which later result in disease of the nervous system, heart, and kidneys. The trouble may be caused by a variety of micro-organisms, but streptococci predominate. The primary focus may be located in any part of the body. Foster gives the following in order of importance: (1) teeth; (2) tonsils; (3) sinuses; (4) gall bladder; (5) prostate. And then probably would come

* Read before the Section on Hygiene and Public Health at the Sixty-fourth Annual Session of the Mississippi State Medical Association, Jackson, May 13, 1931.

the cervix and appendix. Of the troubles resulting, probably the most important types pertain to the heart, endocarditis, myocarditis, and pericarditis. Next come the various nephropathies. Then there is arthritis and kindred conditions, as neuritis and myositis. Arterio-sclerotic changes and hypertension, to a certain degree, are rather common. And, as the focus may be located in any part of the body, the secondary effect may strike anywhere, giving us cholecystitis, appendicitis, pancreatitis, pyelitis, formation of renal calculi, and various skin lesions.

Attack on all of these conditions must be made early or damage will result that can never be undone. Of the acute diseases, appendicitis is a prominent example. The appendix must be removed early if perforation is to be certainly evaded, with its often calamitous results. And the surgeon must still spread the gospel of avoiding purgatives in any acute abdominal condition. For various reasons, statistics on the present day mortality of appendicitis are not as flattering as they should be. Delay is probably the greatest factor. In the chronic cases, the appendix is an ideal location for lingering infection because of its narrow lumen, the difficulty with which it empties, and its rich lymphatic supply.

Back to the chronic conditions. The up-to-date dental surgeon is fully aware of the effect of infection on the general health, and handles his patients accordingly. But there are still some who try to save the tooth and it takes a great deal of tact and persuasion to get them to do their duty. Some want to depend entirely on the roentgen-ray, and it cannot be relied on in all cases. For a period teeth bore more than their share of blame; but, when other foci are eliminated, it is better to err on the safe side and remember that in a dead or nerve-killed tooth, it is only a question of time until a periapical abscess will form.

The ear, nose, and throat man is always diligent in the handling of tonsils, sinuses,

adenoids, deviated septum, enlarged turbinates, and polypi. Some form of surgery is usually required for a complete cure in these instances.

As to the gall-bladder, Dr. John B. Deaver has recently brought to the attention of the profession that operative treatment must be instituted early if hepatitis and its resulting fibrosing cirrhosis is not to be incurred. And, if infection has already reached the liver, not only cholecystectomy but drainage of the common duct is necessary.

Infection of the prostate in men and the cervix in women are especially responsible for recurring diseases of the eye, and probably have been frequently overlooked.

Coming to the consideration of malignancies, it is variously estimated that between 80,000 and 100,000 deaths occur annually in this country from cancer. It kills about one in seven women and one in eleven men over thirty-five years of age, although others place it as low as one out of twenty. The rate of mortality from cancer is increasing, but this is accounted for by the fact that the span of life is also increasing, and more persons are reaching cancer age. Maurice Richardson's maxim is now generally accepted, that every cancer is curable at some stage of its existence. Cancer never begins in healthy tissue, and the real secret of prevention lies in the recognition of precancerous lesions. On the skin we have tumors, warts, moles, ulcers, nevi, areas of keratosis, or any chronic inflammatory irritation. Heal these or cut them out, and cancer may be avoided. It is especially necessary for pigmented moles to be removed with a wide area of surrounding skin and understructure. Precancerous lesions of the lip, inside of mouth and tongue are often associated with smoking and with ragged, sharp edged, dirty teeth. Any chronic ulcer, leukoplakia, or tumor should immediately be treated by irradiation, electrocoagulation or excision.

Any lump in the breast, sore on the skin, or perhaps a discharge from the nipple, is to be regarded as a forerunner of cancer, if not actually so already, and demands immediate attention by the knife. This, all are agreed on. The question of biopsy in order to determine the extent of operation is still debatable.

All lacerations, inflammations, erosions or ulcers of the cervix are potential factors. Bleeding between periods or after exertion, any thin watery discharge with or without odor, or bleeding after the menopause are strongly suggestive. Irradiation might be the procedure of choice in certain of these conditions, or cauterization in others; but the courageous use of the knife, from simple repair of lacerations following child-birth to a complete hysterectomy, is imperative.

All of the above conditions are within the range of vision and the palpating finger, as are also anal and a majority of rectal conditions. This makes for quicker and easier diagnosis of precancerous or early cancer conditions, and places all in the class of preventable disease and amenable to surgery. Cancer of the stomach might also be placed in this class, since the roentgen-ray makes the diagnosis of ulcer so easy and it is probably true that a large percentage of cancer develops on pre-existing ulcers. About thirty per cent of all cancers originate in the stomach. When medical treatment fails to cure the ulcer, surgery should not be neglected.

In preventive surgery, next to the keynote of early diagnosis comes the courage to act on the part of the surgeon. The early precancerous conditions must often be doubtful to be permanently and successfully removed. But the surgeon hesitates when he faces this, together with the patient's ignorance and inherent dread of operation. In advanced cancer, deaths do not occur so often from the operation; they occur from the disease. But the patient wrongly attributes the result to the operation. So a course of watchful waiting is

too often indulged in. Although individuals are nearly always ready to remedy any present evil, to prevent some future trouble is less appealing. The public will have to be put through that painfully slow process of education, and the surgeon will have to form a closer alliance with the public health officer. His work has already been of inestimable value in the localities privileged to have him, and it is to be hoped that it will not be long before he will be everywhere. He starts the process of education with the child where it will take. He teaches him the value of health examination conducted regularly, and in this way only can early diagnosis ever be thoroughly attained.

There are other fields of preventive surgery, but none in which we are so interested as the two discussed above, although there is great interest at present in sterilization of the mentally defective. The surgeon is of course the means of producing this effect when he is so directed. This matter is still in the transition stage, as surgery might be today. Lord Moynihan, just a few months ago, in discussing surgery in the immediate future, made and reiterated the claim that surgery, in so far as its craft is concerned, has now almost reached its limit, in respect both of range and of safety. We are approaching the end of the Listerian epoch and seeing the opening of another. He stated that we might find other and safer methods of dealing with disease, and we might obtain earlier access to acute or malignant conditions. I think he might as well have expressed it preventive surgery.

DISCUSSION.

Dr. F. J. Underwood (Jackson): I just want to congratulate the chairman of the Section on the splendid program he has prepared. It is an ideal program for the purpose intended. Dr. Ross has told us something about surgery in the prevention of disease, and in Dr. Riley's paper,—I don't know,—but I take it he will have something to say in his talk on nutrition of school children about preventive surgery and the removal of foci of infection. Then Dr. Cox, in his

paper, will have something to say about the prevention of cancer.

Dr. Ross was kind enough to send me a copy of his paper before the meeting. I enjoyed it. I read it and re-read it. I even studied it. I think it is a classic.

For many years in Mississippi we have stressed preventive medicine and surgery, and while preventive medicine, which includes preventive surgery, is by no means new, our conception and appreciation of it have changed greatly in recent years. Many of the new phases are still in the formative stage, and we are some times not certain of proper procedure, but the ideal of preventive medicine has arrived and is here to stay. The public now does not have to be sold to it, but is eager for it. Many people know something of the results of non-immunization against typhoid fever and diphtheria and neglected teeth, tonsils, sinuses, gall bladders, appendices, lumps in breasts, cervical tears etc. This places a great responsibility upon the dentists, physicians and surgeons. The physician, surgeon and dentist of the future will devote much time to purely preventive work. Already many of them devote time to preventive work. These men are always busy.

The chief criticism to be made of preventive work, as done by health officers, surgeons, physicians and dentists is that they do not do nearly enough of it. The more the work is developed, the more of it there is to do. In communities where there are no preventive programs and where the physicians show little interest in prophylaxis there is little or no demand for such services, but where preventive programs are common and the physicians interested, the demand increases steadily.

Public health work has been criticised by physicians at times for the reason that it was feared that public health activities would take business away from the doctor. It is extremely shortsighted for any worthwhile physician to think that a well-conducted preventive program in his community can do him personally anything but good. The better any more completely a public health program is conducted and the more interest shown in its success, the better educated in health matters that community becomes and the greater the physicians' individual success is. Wherever infant welfare work has been well conducted, there pediatricians flourish, and the same principle applies equally to the other branches of medical science.

In summary, let me say that I can see no cause for conflict between the health worker and

the physician. The function of the health officer is to organize and to supervise public health activities. The function of the physician is to develop and apply medical science. Only by complete co-operation between the two groups will the realization of our ideals of public health be attained.

Dr. J. Rice Williams (Houston): I don't know anything about surgery, and Dr. Sanford and I work in the same place, and they have him down to discuss something he never heard of, so he says, and I thought we had it changed.

I do congratulate the essayist on his paper and agree with him on the things he said. There are a great many things which can be prevented along the lines he cited. We can prevent focal infection, and we can prevent cancer. Personally, that being along my line, I would say all moles and growths on the skin should be tried out first by some form of radiation.

There is, of course, a great field in preventive medicine. I am heartily in accord with that thought, and also the thoughts Dr. Underwood suggested. I believe the better information given the public along medical lines, the more work a doctor has and the more satisfactory work. If you have an educated clientele, people who are informed as to the possibilities in the prevention of disease, they will go to a well-qualified doctor if there is one accessible, and never would go to a quack or a charlatan. You wouldn't have so much trouble with these people, Dr. Underwood, nor some of the other health officers have so much trouble with the osteopath nor any other kind of a "path," if the public is informed—I don't mean educated in book learning—but if they are informed of the possibilities of medicine, and the possibilities of prevention and of cure.

I agree very heartily with the essayist and thank you for putting me on the program. I am a little bit like the man who sometimes says when you ask him to change a twenty dollar bill. He will say he can't change the bill, but he thanks you for the compliment. I can't discuss surgery, but I do thank you for the compliment.

Dr. M. Toulman (Mobile, Ala.): I, too, am in accord with the essayist. The suggestion has been made by the essayist and also in the discussion with reference to keratosis. Keratosis, I know, is very common in Mississippi. In Scotland it is called "shepherd's disease." Down in Mobile it is called "sailor's disease," and many of your patients call it "farmer's skin." Keratosis is caused by being constantly exposed to the sun's

days. Many of those men cannot be treated with radium. It costs too much, and it is hard to get at, and surgery would be more available.

Dr. Lane of Oklahoma suggested a simple way of washing these places off with ether and then rubbing them with a cerate of salicylic acid and lysol. If these keratotic places are not very deep this will be efficacious.

Dr. T. E. Ross, Jr. (closing): I want to thank the doctors for this discussion.

INFORMATION THAT CAN BE FURNISHED BY THE OPHTHALMOLOGIST.*

HENRY N. BLUM, M. D.,

NEW ORLEANS.

"The eye speaks with an eloquence and truthfulness surpassing speech. It is the window out of which the mingled thoughts often fly unwittingly. It is the tiny magic mirror on whose crystal surface the moods or feelings fitfully play, like the sunlight and shadows on a still stream."—Tuckermann.

A complete report of findings of an ophthalmological examination made as aid in general diagnosis should contain a review of all pathology found in the eye and its appendages. This paper is intended only as a review of some of the most important and most frequently found deviations from the normal. I shall dwell, therefore, mostly upon a few of these, for the subject is encyclopedic indeed, embracing as it does almost the entire field of medicine. Most diseases of the eyes are only manifestations of disease elsewhere. Of course, we meet with abnormal conditions in the eye which are independent diseases, external diseases which are only local and have no association with general disease, but of these it is not necessary to speak in a paper of this sort. However, I should not fail to say that even of certain errors of refraction we have learned that there is some undoubted association with the general economy both

as to their origin and as to their influence upon general bodily welfare and well-being.

It is true that most laymen are surprised when made aware of the fact that there is an intimate association between eye manifestations or conditions and the general health, or that much influence can be mutually made upon one or the other by the eyes or by some neighboring or distal organ, but surely medical practitioners know these things to be true. They only need to be reminded occasionally that ophthalmologists are medical practitioners and are not to be considered as belonging to the same class of "doctors" as optometrists or opticians, and not only as eye surgeons either. It is true that much of their work consists in placing before their patients' eye properly fitted lenses which not only aid in enabling them to see properly but also while doing so to correct headaches and even to relieve many other local and distant symptoms of disease. It is true too that the eye surgeon has much operative work to relieve surgical conditions which demand his attention. It is in the field of general medicine, however, that the ophthalmologist finds his greatest opportunities to his colleagues and to humanity.

One of our most distinguished ophthalmologists has only recently stated that in his opinion the best oculist is one who has directed his attention to the study of the eyes from the beginning of his medical education or even before this time and that in his opinion the greatest and most successful oculists have been those who have followed this course.

Because of the intimate relation of the eyes to bodily disease and bodily welfare I believe that the best specialist is one who has practiced as well as studied general medicine before he begins to specialize. Such an oculist will not be apt to think of the eyes as independent organs, but as parts of a general whole, as organs especially devised to place the owner in contact with the outside world. They are in re-

* Read before the Louisiana State Medical Society, New Orleans, April 14-16, 1931.

lation to the general organism, flesh of its flesh, and blood of its blood, and are subject to many of the influences of the body and they in turn impress themselves upon the body in a way which is sometimes surprising.

The eye is so constituted that one can look into it and see many things which are going on inside its owner. One may think of the eye as a curious busy-body, which while occupied constantly with the affairs of its neighbors can also be peered into by other busy-bodies. The eye is more than the window of the soul. It is a window too into which one may look and examine the brain, the kidneys, the heart, blood vessels and other important but less spiritual possessions. This does not mean that the ophthalmologist cannot be a poet, though to him the outward appearances of eyes are attributed to physical reasons based on certain anatomical and pathological conditions, and he is more apt to attribute certain expressions to these reasons rather than to spirituality in most cases. It is well known to all that certain of the muscles of the eyelids have to do with the facial expressions which accompany emotional disturbances. The widening of the palpebral fissure seen in surprise, and the more violent emotions of fright, terror and horror are familiar to all of us. The wrinkling of the forehead and the contraction of the muscles of the face and neck, which of course, are seen, are not part of our subject. Those who are interested in a humorous discussion can find entertainment in Mark Twain's "Innocents Abroad" and for a scientific treatise one can find both entertainment and instruction in Darwin's "Expression of Emotions in Man and Animals." Though the oculist can look into the future as far as human eye can see, though he can read the past, the present and the future, he uses an ophthalmoscope and does not know what a horoscope means. He is not a magician, but only a medical practitioner who sees in the eyes, and particularly in the eye grounds, evidences of

disease which mean much to him of the past, the present and the future of the individual.

Disturbances of the extra-ocular muscles are seen sometimes as symptoms of general disease. They manifest themselves as weakness of the extra-ocular muscles, or as a paralysis of these muscles. We have as a consequence of these conditions deviations of the eye, or tendencies for these deviations. We will not consider here the cross-eye of childhood, which is frequently congenital and in many cases of unknown origin, but only those abnormalities of the muscles which are associated with and are a part of certain diseases and conditions.

In these days of automobile accidents one is particularly apt to see muscle paralysis caused by skull fracture. We have here a disturbance of the third, fourth or sixth cranial nerves, which supply the nervous connections for the extra-ocular muscles. The sixth nerve is more exposed to injury than are the others and as a consequence paralysis of the external rectus is more frequently seen. We see the fleeting paralysis of locomotor ataxia, involvement of the third nerve in brain syphilis and in locomotor. In tumors of the brain we frequently see disturbances of the extra-ocular muscles. We occasionally see involvement of the internal branches of the third nerve. Paresis of extra-ocular muscles is common in diseases of the general nervous system and it forms one of the predominant factors in diagnosis. In brain syphilis, paresis, tabes, multiple sclerosis, it is always to be looked for, and frequently forms the symptom which forces the disease upon the attention of the observer.

Transient extra-ocular paresis is a frequent symptom of tabes and may occur in 20-25 per cent of cases. It is nuclear in origin—third most frequent, then sixth and then fourth. In these cases optic atrophy may be an early sign and it may precede other symptoms for years. It may be late. Those with optic atrophy run mild tabetic

course often. Optic atrophy has been seen to precede ataxia for 20 years.

There remains to be considered the tendencies of the eye to deviate in certain directions because of various reasons. The most common of these phorias are exophoria and esophoria, but occasionally we have to deal with hyperphoria. Formerly it was thought that exophoria was a condition due only to anatomical variations on account of the width of the skull, direction of the orbits and weakness of the internal recti. The latter condition was attributed to a weak muscle, or to the improper implantation of a tendon. Recent observations have convinced me that esophoria and exophoria are frequently seen in connection with diseases of other organs, neighborhood symptoms, particularly of the para-nasal sinuses and tonsils. Whether the disturbance is one of innervation on account of the nerve supply's being common to these neighborhood organs, or whether it is toxic, as I have sometimes believed it to be, I do not know. Possibly disturbances of the gastro-intestinal tract, producing a toxemia might be a causative factor in some cases. Attention to the phorias is very important in the consideration of the health of the individual since they often cause great discomfort in the use of the eyes and are occasionally the cause of remote nervous disturbances, such as headaches, neurasthenia, insomnia.

Esophoria, exophoria and hyperphoria are conditions which have much influence upon the health of the individual because of the local discomfort, and inability to use the eyes without great inconvenience and sometimes they produce an absolute inability to do close work. Innervational impulses have much to do with the genesis of these conditions, and refractive errors, accommodational disturbances, the state of the general health, all have to do with the proper adjustment of the labor of twelve extra-ocular muscles in making the fine co-ordination necessary for the attainment of binocular vision. The strain of overcoming

the tendencies of the eyes to deviate in the presence of improper innervations is sometimes responsible for many distant and seemingly unrelated symptoms. (Peter).

Disturbances of the motility of the eyelids are to be mentioned now, and are sometimes due to the same causes which produces trouble in the six extra-ocular muscles. The elevator is innervated by the third cranial nerve which we have learned supplies four of the extra-ocular muscles. However, we have in the eyelids the orbicularis, which closes the eyes and this muscle receives its innervation from the seventh nerve. Spastic is a condition which is frequently met with and paralysis of the seventh nerve is one which is common in ophthalmic practice. The latter produces a typical widening of the palpebral fissure with disturbances of lachrimation. Widening or narrowing of the palpebral fissure may also be produced by disturbances of the sympathetic, which supplies the muscle of Muller, an accessory elevator of the eyelid.

Enophthalmos and exophthalmos are conditions to be considered, particularly the latter. It may be unilateral or bilateral. Unilateral exophthalmos due to Basedow is occasionally seen, but almost always the exophthalmos is bilateral when due to goitre. When unilateral exophthalmos is present one must think of a local cause for the protusion—new growth in the orbital walls or contents, or pulsating exophthalmos due to arterio-venous aneurism and that due to trauma. Lues is frequently found in the bony walls of the orbit. Enophthalmos is seen in paralysis of the sympathetic.

So much of importance in general diagnosis can be gained by examination of the cornea and iris that one is loath to pass them over with only scant mention. In syphilis, rickets, endocrine disturbances, marasmus of infants, tuberculosis, diet deficient in vitamins, diseases of metabolism, dental caries and para-nasal sinus infections, the cornea is often involved secondarily.

Since the invention of the corneal microscope with the slit lamp, renewed interest has been taken in the study of the cornea. While the microscope has not added very much to our knowledge of these diseases, it has stimulated more intensive study of our cases, and we have been able to observe conditions which otherwise would have escaped our attention. It has aided in diagnosis. It has enabled us to differentiate corneal lesions much more easily than was hitherto the case, since pathology in different parts of the cornea can be localized very much better by this method and diagnosis made quicker and with more exactness. Even though the magnification obtained is not very high, we can distinguish microscopic elements which passed without observation before, and even in the old corneal blood vessels remaining from interstitial keratitis we are able to observe corpuscular elements in the blood stream.

In discussing diseases of the cornea one must not fail to mention a common disease of childhood. Phlyctenular keratitis is a disease of childhood and young adult life and by some has been attributed to tuberculosis. Many cases in children have close association with teething, and gastro-intestinal disturbances due to improper diet, particularly the over-feeding of sugars and starches. In some there seems to be a response to the healing process only after offending tonsils and adenoids are removed.

In old age we have the corneal dystrophies, which are associated with degenerating processes in the presence of long continued irritation.

The iris constituted as it is of pigment cells, muscle and nerve is a tissue very readily susceptible to disturbances of the general health. Toxines circulating in the blood stream can and frequently do produce disturbances of the iris and ciliary body—the most frequent causes of irido-cyclitis are lues, tuberculosis and focal infections. We have besides anatomical variations chronic and acute inflammatory diseases

and neoplasms. The iris and ciliary body is a favorite site for gummatous and tuberculous manifestations.

The Argyll-Robertson pupil is of greatest aid in diagnosis, occurring in tabes, paresis and syphilis, usually in tabes occurring, according to Arnold Knapp, in 67 per cent of cases. Irregularities of the pupil occur not infrequently and the seat of the lesions is doubtful. According to some authors there is a congenital inequality which is inexplicable. However, inequality of pupils is usually considered pathological. Disturbances in the reflex arc between the optic tract and the ocular-motor nucleus occur producing irido-plegia. Miosis is characteristic and may precede ataxia by several years in tabes. Loss of roundness, irregularity of pupil, may precede loss of motility and this occurs frequently in tabes, paresis and syphilis according to Knoblauch.

The crystalline lens is a structure which we must mention because of the diseases due to the disturbance of the general economy. The lens is a comparatively transparent structure and becomes semi-transparent as age advances. This is due to its mode of development and to senile changes. Cataract is that disease of the lens wherein the structure loses its transparency by the occurrence of opacities, discrete or diffuse, in its different layers. These opacities are of various kinds depending upon their origin. If they are due to injuries of the lens by trauma they differ in appearance and location from those due to general disturbances, such as diabetes and rickets, and so it is with those cataracts which can be classed as congenital or juvenile. Each variety has its own etiology and much light can be gained about the causation in relation to the general health by a careful and systematic examination under the influence of a mydriatic and with the aid of the slit lamp and the corneal microscope. We are able by this means to determine the age of an individual opacity by its locali-

zation in a particular part of the lens structure.

My subject is, as we have said before, too broad a field to cover in a short paper, to discuss all of the diseases and conditions found in the eye, and I can only therefore mention a few of the observations to be made in a thorough and systematic examination of the eye grounds, whereby the oculist may assist in making a general diagnosis. Of the different abnormalities of the general vascular system which one can diagnose with the ophthalmoscope, one must mention arterial hypertension and arterio-sclerosis. Whenever one may see irregularities in the width of retinal arteries his attention is directed towards a more careful search for the reason therefor. In health the arteries of the retina gradually and symmetrically become smaller as they proceed to increase in number—by branching. Should one see an irregularity in the contour of the arteries either by narrowing or widening he must suspect that disease exists. Spasm of vessel walls may indicate hypertension, possibly essential hypertension. Indeed it is possible to determine by subsequent examination that organic changes have not taken place and that there has really been a spasm of the vessel walls. Marked irregularity in the calibre of the vessels, marked narrowing of the blood stream in contrast to wider portions elsewhere in the course of the same vessels, particularly if combined with much tortuosity of the vessels, indicate that organic changes have taken place. Especially is this true if there is other evidence of sclerosis. If there is a definite compression of a vein caused by the crossing over it of an artery one may conclude that the artery is stiff and has undergone atheromatous changes. There may be and often is impression of veins by arteries when the veins are on top of the arteries. If the arteries are normal they are gracefully arranged in the retina, and if they assume a straighter and less graceful course one may assume here too that the vessel walls are thicker and stiffer. Retinal veins

show degeneration by irregularity, irregular widening of their calibre, producing a beading effect, which is characteristic of angio-sclerosis. There is a characteristic reflex along the retinal vessel walls and when this is observed to be wider than normal it may be taken as evidence of beginning sclerosis, or when very marked, advanced sclerosis. As the disease advances there are naturally more evidences of it to be seen, hemorrhage and exudate in retina surrounding the vessel. As the disease advances to the terminal stages the calibre of the vessel may be entirely obliterated and only a white line may be seen to mark the former location of a retinal vessel.

One must note that it is frequently possible to determine the presence of arterio-sclerosis in the retina long before it is manifest elsewhere, and this is due to the very insidious nature of the disease. In the presence of hypertension and of the characteristic signs of arterio-sclerosis it is possible and it often happens that the ophthalmoscopist is the first to discover the disease. We must not forget that we may see signs of arterio-sclerosis in the choroid, which are unmistakable even before we are certain of it in retinal arteries, but this is possible only in some fundi where there has been absorption of pigment, in albinotic eyes, or eyes deficient in retinal pigment.

The retina may be injured by a blow or contusion, producing Berlin opacity, according to some a bloody exudate between the sclera and choroid possibly. The real nature, however, of Berlin opacity is doubtful. The diffuse cloudiness of retina might be due to embolism, to Berlin opacity or to detachment of retina. The macular region is very vulnerable to injuries, because it is the thinnest part of the retina. It may lose its characteristic reflex and show reddish or yellowish spots, or holes might occur in the macula. Sometimes in traumatic injuries accompanying areas of white spots around the optic nerve there are small hemorrhages—Purtscher spots. Detachment may follow severe trauma and in

many of these cases we are able to see tears in the retina, as well as in the choroid, showing the sclera beneath. In severe injuries, such as a blow from a fist, we may have a tear in the iris, dislocation of the lens and even a tear in the sclera itself.

Heine said that main causes of hemorrhages in the retina are in order of importance: Chronic nephritis, diabetes, arterio sclerosis, purpura, tuberculosis, scurvy, polycythemia, anemia, leukemia, endocarditis, sepsis, and typhoid fever very rarely. In circulatory disturbance, pulmonary stenosis, mitral insufficiency, embolism or thrombosis, hemorrhage in the new-born and during menstrual periods. These hemorrhages are more probably due to diapedesis than to rupture of a vessel wall, though sometimes due to rupture of small atheromatous arterioles with softened areas and miliary aneurism. Sclerosis of cerebral vessels is more common than in retina. Unthoff found retinal hemorrhages in only 4 per cent of cerebral appoplexies. However, if retinal vessels show changes they also exist in cerebral vessels.

✓ Chlorosis produces a light colored retina because of the changes in the blood, and occasional pulsation of the central retinal artery. Pernicious anemia causes edema of nerve head, optic neuritis and hemorrhage from vessels. Leukemia produces neuro-retinal hemorrhages and papillitis. Moore does not believe that increased arterial tension is responsible for hemorrhage. Geis found the blood pressure increases in retinal hemorrhages when due to arterio-sclerosis and nephritis and diabetes, but in lues, anemia, and in some cases of diabetes and nephritis, pressure was normal. He followed a large number of cases when they were precursors of cerebral appoplexy. The recurrent hemorrhage in the vitreous and in the retina of the adolescent is generally attributed to tuberculosis. In these cases the outcome is dubious. They occur usually in the anterior fundus and therefore difficult to blame a particularly vessel.

Choroiditis may be diffuse or disseminated, in some cases due to tuberculosis and in some to lues. The diffuse variety is usually due to lues, though not 80 per cent is due to lues as formerly believed. In diffuse choroiditis due to lues the posterior vitreous has many dust-like opacities. There are small white and red dots, which later become grey, causing sector defects in the visual field; night-blindness and light sense are much diminished and vision much reduced when compared with the amount of pathology seen in the choroid. It lasts for many years and the prognosis is bad. After it has lasted for a number of years pigment atrophy and proliferation are seen, which become in some cases very intense and it is possible for the condition to be confused with retinitis pigmentosa. Retinitis may occur without choroiditis, but usually the inflammation in the choroid extends to the retina. It may attack the circumpapillary part only. Tuberculosis occurs in small, single, multiple foci, or in large masses, conglomerate. It may be miliary in miliary tuberculosis. In chronic tuberculosis we find large masses. We may find it in the macula or on the disc, for the optic nerve itself may be involved. In Europe tuberculosis is diagnosed very much more frequently in choroiditis than in New Orleans. In Vienna it is particularly frequent.

Embolism of central retinal artery or branches is characterized by sudden loss of vision, which is absolute. This is supposed by many to be more frequently due to thrombosis than to embolism, and is characterized by narrowing of the retinal arteries, and diffuse cloudiness of the retina with characteristic red spot in macula. According to Leber thrombosis of central retinal vein is due to embolism of the central retinal artery, a retardation of the blood current resulting in thrombosis. Thrombosis usually takes place in the region of the lamina cribrosa. This condition frequently results in secondary

glaucoma on account of the albuminous exudate from the vessels into the vitreous.

Glaucoma is one of the most common and serious diseases met with in ophthalmology. The chronic form of glaucoma should hold great interest for the internist. It is so frequently associated with arterial hypertension that it should be to the general practitioner a matter of much concern. There is no doubt that there is an intimate relation between arterial hypertension and intra-ocular hypertension. One must not forget also that the same causes which produce high blood pressure may exert their deleterious effect upon the structure of the eye which have to do with secretion and drainage of the eyeball. The epithelial cells of the ciliary body have a very important role in the production of the aqueous, the vitreous and in the nutrition of the lens. We have been able in many cases of chronic glaucoma to point the finger of suspicion at the ciliary body as the original ocular cause. We believe that in many cases low-grade cyclitis is one step towards the production of chronic glaucoma. Unfortunately, in most cases the diagnosis is not made until the disease is well established and it is then quite too late to treat the disease without surgical intervention. We should, however, attempt to determine the original factors in the causation of glaucoma, and never lose sight of the fact that glaucoma is only one symptom of a general disturbance, which must be recognized and treated if we hope to get the best results.

Wilbrand and Saenger recognize three types of retro bulbar optic neuritis, axial, peri-neuritis and total transverse neuritis producing respectively central scotoma, peripheral contraction and more or less severe failure over the whole field. In acute axial neuritis there is a rapid onset and a gradual recovery, and it is usually unilateral. The scotoma is central, the main defect being para-central, either circular or oval. Retro bulbar optic neuritis shows

nothing in the eye grounds when the patient is first seen. Optic neuritis may be hereditary—syphilitic, secondary to tumor of the brain, meningitis, nephritis, para-nasal sinus suppuration, acute febrile diseases or chemical poisoning. It is usually bilateral.

Intra-ocular optic neuritis is divided into two forms, true neuritis and choked disc and it is sometimes hard to differentiate between the two. In true neuritis the nerve head is not elevated perceptibly and in choked disc there is much elevation. The arteries are little changed in true neuritis and smaller in choked disc. Hemorrhages are rarely present in neuritis and usually present in choked disc. Vision much disturbed in neuritis and not much in choked disc until atrophic changes have taken place. Visual fields show central scotoma in neuritis and variable changes in choked disc, sector defects, hemianopia, dependent upon the cause. The two conditions are usually due to general causes—brain disease, syphilis, acute febrile diseases, poisoning by lead and other poisons, lues, orbital affections, and so on.

An important part of the ophthalmological examination in doubtful cases is the taking of visual fields. This method of examination enables us to discover defects in the visual tract which would not otherwise be known. The field is too wide to discuss in a general way, but it may not be amiss to mention one or two frequently occurring conditions which are of interest to the general practitioner.

Hemianopia is a bilateral defect, either supra-chiasmal or chiasmal in origin. It is a defect of the binocular field caused by a symmetrical, bilateral, occipital lesions, a lesion in the tract, in the chiasm, or a lesion geniculo-calcarine in origin. The main defects of the glaucoma field are depression with peripheral contraction, more on the nasal side, a nasal step with sector defects. The characteristic changes are due to nerve fiber bundle defects. Bjerrum scotoma, which usually begins at the blind spot and

extends towards the nasal periphery until the scotoma reaches the horizontal meridian, is a characteristic glaucoma finding. In certain cases there is no definite connection with the blind spot, but the comet-like defect or scotoma would reach the blind spot with further development. The spiral fields of neurasthenia, and in hysteria the characteristic concentric contraction not changing at different distances with different sizes of targets, assist in establishing the diagnosis.

My excuse for writing a disconnected paper of this sort is that I have attempted to discuss something which might be of interest to physicians other than oculists, and I have therefore spoken of a variety of conditions which are met with in the ordinary practice of everyday ophthalmology in order to show the importance of ophthalmic pathology and to insist upon a thorough examination of the eyes as helpful in diagnosis.

DISCUSSION.

Dr. Rufus Jackson (Baton Rouge): In consideration of the matters that are touched upon in this paper, it is rather regrettable that it was not presented before the section on medicine, for the internists need it rather more than the surgeons. Indeed, the internists and the neurologists ought to be almost as much interested in the findings of an eye examination as the ophthalmologist.

The premise of the essayist, that the competent ophthalmologist is thoroughly grounded in general medicine, is really elemental, and how he gains his knowledge is not a matter of primary importance. He may go into general practice and emerge from it to specialize, or he may specialize from the beginning, but whatever he does, he must know general medicine. His patient doesn't get a square deal under any other arrangement.

This leads me to another point, that the medical profession is leaning over backwards today in relegating to the ophthalmologist all the information to be gained from a study of the eye. I cannot get this point of view. I see no better than any other man, I am no more deft with my hands, no more facile with my brain, and it did not take me half of my lifetime to learn how to use an ophthalmoscope. If I were a medical man, I should be ashamed to call in an oculist before I had made at least a cursory examination of the

fundus. I should not feel that I had exhausted the possibilities of a case before I had at least formed the opinion that some pathology was or was not present. The internist ought at least to be able to say that macroscopic pathology does or does not exist. The borderline case, the complicated case, is different, but let him have some opinion about the simple case.

The ophthalmologist has no right to express an opinion about the results of his special examination until he knows something of the medical aspects of his patient's condition. This is not a matter of invading somebody else's field, it is a matter of knowing thoroughly your own field. In my own opinion, the handwriting is already on the wall, the internist who can do nothing but internal medicine is doomed, just as is the oculist who can do nothing but ophthalmology. Each must know something of the other's territory, and I would particularly advise all the young men who are preparing to be internists to include in their preparation the simple use of the ophthalmoscope.

Dr. Charles A. Bahn (New Orleans): No structure of the body contains a greater number of highly specialized tissues than does the eye. This accounts for the fact that at least six of every ten patients who consult the ophthalmologist present an extra-ocular factor which must be seriously considered if we are to cure the eye symptoms. Dr. Blum has emphasized a number of the more frequent signs of general disease which are manifested in conditions affecting the eye, and it might be of interest to mention a few of the more rare signs.

For example, there is a ring of pigment which is seen in the deeper layers of the cornea and which is called Kayser's ring; it is practically always associated with degenerative disease of the liver and brain (Wilson's disease), and its appearance, therefore, is almost pathognomonic of disease in organs far removed from the eye. A form of retinal angiomas is practically always associated with a similar condition in the cerebellum (Lindau's disease). The perinuclear type of cataract indicates that an endocrine dysfunction, usually in the parathyroid, has existed between the ages of two and four years. The lens of the eye is one of the few structures of the human body which retains at death the cells with which embryonic life was begun, and for that reason we can tell with absolute accuracy when any special part of it was formed, and we can likewise often tell when any disease developed in it. Nodule formation in the iris speaks strongly for the existence of syphilis, tuberculosis, leprosy or sympathetic disease, the character

of the nodules often enabling us to tell which was the causative factor.

Such examples are evidence of the unlimited field of diagnostic skill which the competent ophthalmologist can command.

THE TREATMENT OF THE EXCRETORY PORTION OF THE LACRYMAL APPARATUS.*

W. S. SIMS, M. D.,

JACKSON, MISS.

I have nothing new to present on this subject and my excuse for this paper is a desire to give an outline of the different methods of dealing with the lacrymal sac, and the one I have found from experience the most satisfactory.

It should be the aim of every surgeon to repair and preserve the function of an organ in all cases when such is possible. In this there is no dispute.

The writer has long since discarded the use of probes as a method of treatment for dacryocystitis except in very rare cases and in infants.

Even in these cases it is better to first try other well known methods before resorting to probes. Fuchs says that a permanent cure with probes is one of the rarest exceptions.

Parsons says it is impossible to probe a swollen and inflamed duct without injury to the walls. He further says that the healing of the abrasions is accompanied by the formation of connective tissue which contracts when it organizes and leads to fibrous stricture instead of obstruction by swollen mucus membranes.

The writer has for the last several years adopted what might be called a conservative method of treatment with far more success than with probes. First, a careful examination of the nasal mucus membrane is often of value, especially about the inferior turbinate. Here we may find the

origin of the trouble, and if so, treatment may lead to a permanent cure. The next step is to induce anesthesia of the conjunctiva, and then proceed to enlarge the lower punctum with a conical sound sufficiently to permit the entrance of the syringe point. (A slit of two or three m.m. is allowable). A few syringefuls of a boric solution is passed into the canaliculus and, if it fails to pass down into the nose, it must be repeated every day for a week or ten days. In a majority of cases we will succeed in getting the liquid through. When this occurs the syringing should be continued at longer intervals, from four to six weeks. If not successful with the boric lotion, argyrol (10 to 25 per cent) should be used. It is a decided advantage in some cases to first use a solution of cocain and adrenalin. This is true in a great number of cases if recent and if they have not been previously treated with probes. The rationale of this depends upon the fact that the walls of the sac and duct are inflamed and swollen. The treatment reduces the swelling and restores the communication.

A canaliculus should never be slit up to the sac because it too often results in an obstruction more obstinate to deal with than the former one.

Of course cases are met with that do not respond to this method of treatment, and a radical operation is indicated. There are three operations recommended:

1. Incision, followed by treatment with probes.
2. Destruction of the sac.
3. Extirpation of the sac.

In certain selected cases, as a foreign body, the following case gives a very clear idea of one way when the first method was adopted and failed.

An incision was made after the method of Meller for the extirpation of the sac. After reaching the sac it was discovered that the lower part of the sac was very much enlarged and hard. I remembered on one occasion at Fuch's clinic that a patient before doing a cataract extraction was

* Read before the Section of Eye, Ear, Nose and Throat, at the Sixty-fourth Annual Session of the Mississippi State Medical Association, Jackson, May 13, 1931.

operated upon for a dacryocystitis by opening the sac and packing the wound with gauze before doing the extraction which was allowed to remain until the wound of the eye ball had closed. The gauze was then taken out, the wound closed and the canal performed its function as before.

Acting upon this observation, the sac in my case was opened and a mass of concretions removed with a curet. With a probe it was learned that the opening was now through to the nose. The wound, after being washed was closed.

Following this every day with a syringe-ful of warm boric acid solution for ten days, a perfect cure was obtained.

The writer has had a very limited experience with the second method or the destruction of the sac. There has only been two cases and both proved to be successful, but with some scar tissue. A fifty per cent trichloroacetic acid was used for the destruction of the sac, as recommended by Dr. Harold Gifford, of Omaha.

The best of the operations devised for the extirpation of the sac is the one recommended by Dr. Allen Greenwood and described by him in a paper before the American Academy of Ophthalmology and Laryngology in 1920. A brief description of the operation, mainly in his own words, follows:

The patient is prepared as usual for such an operation and general or local anesthesia brought about. Prior to making the incision it is well to place a strip of adhesive plaster across the closed lids over the eye on the side to be operated upon.

It is then the author's custom to outline on the skin with the finger nail the exact position of the lacrymal crest. A small scalpel should be used and the incision started one or one and one-half m.m. above the triangular ligament and the cut made directly down to the bone and following along the crest as close to the lip as possible downward and outward nearly two c.m. in length.

On separating this wound with one of the special retractors, it will be found, if the incision has been made properly that the bone is exposed all along the lacrymal crest.

The next step is to have the assistant to hold up the upper angle of the wound with a large strabismus hook. This helps to control hemorrhage and enlarges the field of operation. With a knife, an incision should now be made through the periosteum from above downward, if the first incision did not cut clean to the bone.

This periosteum incision follows as close to the edge of the crest as possible. Usually about one-half m.m. is enough to prevent endangering a slipping over into the sac. On separating the periosteum from the crest it will be found difficult to go farther as here it is firmly attached to the bone and to the deep fascia which lies over the sac. In fact, the deep fascia and periosteum are intimately interwoven to this point. It being impossible to separate the periosteum any farther, a knife point can be used to cut through close to the bone and at once the sac comes into view. The nick thus made should be enlarged upward and downward until the sac is thoroughly exposed. The above method of finding the sac is certainly very greatly simplified.

Following the exposure of the sac, a periosteal elevator may be used to pry the sac from the anterior portion of the lacrymal fossa, this being part of the lacrymal crest of the maxilla and made up of heavy bone. Posterior to this, however, lies the portion of the lacrymal fossa which is made up from the nasal bone, and here great care must be exercised not to perforate the bone. At this stage the author prefers to use a strabismus hook, gently separating the sac from its posterior bed.

The next step is a little more difficult, but is simplified by taking a broad hold on the temporal cut edge of the periosteum and fascia with a pair of fixation forceps.

After the sac has been separated in this way from the deep fascia it is possible to

pass a strabismus hook completely around the sac. The sac is then grasped with forceps as low down as possible and cut off deep in the lower part of the fossa. The sac is now lifted out of its bed, the canaliculi cut, and the dome of the sac separated from the upper part of the fossa.

The curetting of the lacrymal canal, closing of the wound and after treatment differs in no practical way from Meller's well known method, and will not be described here. I might say, however, Meller's method of curetting the canal is far better.

DISCUSSION.

Dr. W. A. Stevens (Gulfport): Disease of the lacrymal canal is one of those things seen rarely and regretfully. The treatment is unsatisfactory.

I agree with Dr. Sims that probing is not a rational treatment. Improvement from its use is necessarily temporary and there is likely to be more constriction after than before. A treatment that is often effective is the instillation of colloidal silver solution into the eye, with intermittent pressure over the lacrymal sac.

Extirpation is the only operation that I have done for chronic disease of the sac. The objection to this operation is that the patient may still be annoyed by epiphora. Nevertheless it removes the menace to the eye, and it is still employed by most ophthalmologists.

Dacryocysto-rhinostomy is an operation that Dr. Sims did not mention and with which I have had no experience. In different forms it has enthusiastic advocates and in certain respects it seems to be the ideal procedure. There are three objections to it, however, liability of the nasal opening to close, ease of spread of infection from nose to eye, and the danger of extension of infection from the sac to the ethmoid cells.

Dr. James B. Stanford (Memphis): I have had the pleasure of seeing Dr. Greenwood do his operation a few times, and must comment on the amazing speed with he can extirpate the sac. It hardly takes him ten minutes to remove the sac and close the incision.

Dr. A. G. Wilde (Jackson): There is probably no operation done on the human body that is so small, and at the same time so difficult of perfection, as the removal of the lacrymal sac. During its extirpation it is necessary to keep the local anatomy clearly in mind. When there have been multiple attacks of inflammation, and probably one or more perforations of the sac, the various

layers become so adherent, and enmeshed in scar as to be indistinguishable. One is then forced to rely on the bony landmarks.

In its elimination, the method of Greenwood as so well described by Dr. Sims, has several advantages over the usual Meller technic, not only from the saving of time, but by sticking closely to the bone one is less likely to open the sac and thus allow a portion of the infected mucus membrane to remain. It is advisable to remove the upper end last, as its apex is surrounded by a venous plexus that if wounded can bleed abundantly and jeopardize the success of subsequent manipulations.

While we speak of "acute dacryocystitis," we probably never see that stage. What we meet is an acute flare up of a chronic dacryocystitis, that by extending into the surrounding tissues has developed what might be more accurately termed an "acute peri-dacryocystitis."

In lacrymal stenosis, I have had few successes following the use of probes. By these the mucous membrane is traumatized, or a portion is destroyed, that will later form scar tissue and thus aggravate the very condition you are attempting to relieve. In the congenital type probing is indicated, and one passage into the nose will permanently relieve the condition.

Here a simple method is sometimes effective. The sac is filled with saline solution, and the canaliculi occluded. A quick push on the distended sac will by hydraulic action transmit this energy downward, and break through the point of obstruction that is usually at its inferior outlet. If this is not successful, use the probe.

In cases of difficult probing, where the obstruction is located below the sac, the Dean method may be found effective. The sac is opened below the canthal ligament, and any necessary treatment is applied to its lining. A probe of the Ziegler type is then passed from the sac directly into the lacrymal canal.

In any consideration of the punctae and canaliculi we must recall that they perform their function by capillarity, and when dilated beyond this point they cease to drain properly. Hence a number four Bowman is probably the largest that can be used with safety.

Dr. H. L. Arnold (Meridian): There are one or two points I would like to bring out in this discussion, and one is the infection or closing of the drainage of the canal. Extirpation of the sac is best. One unfortunate part is the fact that so frequently, intranasal infection has accompanying sinus troubles. Extirpation, I repeat, is the operation of choice, and some form

of intranasal drainage is the best for others.

Dr. Sims mentions one thing in which I do not agree with him—the injection of argyrol. There is a possibility of precipitation of fluid in the tissues. There are other things that can be used besides the silver solutions.

Dr. E. L. Wilkins (Clarksdale): I want to emphasize what has been said about the injection of argyrol in the sac. Some time ago I met a man on the street who was bigger than me, and he threatened me seriously for injecting argyrol in the sac. It was the only one I ever had like that, but—never again!

Dr. W. S. Sims (closing): Replying to your objections to the use of argyrol: We do not use it if we suspect an open wound, as we too often have after the use of a probe. Be very careful of its use in any open wound in the canal. So it is only when we have an open wound that we have cause to fear undesirable results. Of course, we must use all of those silver preparations very cautiously, especially for two great a length of time, owing to a stain of the conjunctiva that might occur. There is another thing we must keep in mind: and that is that argyrol, after a very few days, deteriorates and is worthless.

ABORTIVE POLIOMYELITIS:

REPORT OF TWO CASES.*

J. H. MUSSEY, M. D., AND L. A. MONTE, M. D.,

NEW ORLEANS.

During the past late summer and early fall, there has been a relatively widespread epidemic of poliomyelitis, with the greatest incidence of the disease in New York City, New York state, Connecticut and Massachusetts. Of the original cases a large number were reported from these states, but since then the disease has spread rather widely throughout most of the Northern states. The severity of this epidemic may be judged from the fact that for some weeks poliomyelitis lead all of the reportable diseases in frequency in the United States registration area. Although poliomyelitis has a tendency to remain located in a comparatively small area, nevertheless there is always a chance and

possibility that there may be a widespread epidemic throughout the United States. There have been reported in Louisiana but a few cases, though at the present time at Charity Hospital there are more patients than at any time in the past few years.

Poliomyelitis is a disease in which only a comparatively small number of the cases present the full-fledged, characteristic picture of the disease. It is estimated that from 40 to 60 per cent of the cases show no evidence of paralysis and that from 10 to 15 per cent of the total show symptoms referable to the cerebro-spinal system which are minimal and are not always recognized. Two patients were observed in Charity Hospital, Ward 248, who presented symptoms of meningeal irritation, the cause of which would probably not have been recognized without the facilities that a big hospital affords for performing lumbar punctures and other diagnostic procedures, and where the house officers are most vigilant in watching for cases of meningitis. It is for the reason that such cases are often overlooked that we are reporting briefly these two cases of what unquestionably represent abortive poliomyelitis.

Case 1. N. D., a colored girl, aged 19 years, was admitted to the hospital on the 25th of September, because of headache and stiffness of the neck. She had had this headache for several days. The stiffness of the neck developed twenty-four hours before admission. With this she also had some fever. There were no other outstanding subjective symptoms of moment. Physical examination showed nothing further than a distinct rigidity of her neck muscles and fever, temperature on admission being 102°. Because of the importance of recognizing early meningitis, a lumbar puncture was performed. Examination of this fluid showed a cell count of 750 with 70 per cent polymorphonuclears and 30 per cent lymphocytes. Globulin was 1+. The Wassermann and the spinal fluid were negative and there were no organisms observed in the culture or the smear. The next day the temperature fell to normal and remained so for the following six days the patient was in the hospital. A lumbar puncture performed a few days later resulted in the drawing of a clear fluid which was not under pressure. The cell

*From the Department of Medicine, Tulane University School of Medicine, and Charity Hospital of Louisiana, New Orleans.

count had fallen to 180. Colloidal gold was negative, as was the globulin, and the sugar was 41 milligrams per 100 cc. Patient was discharged six days after admission without any evidence of involvement of the central nervous system.

Case 2. A. J., a young white girl, 17 years old, was admitted to the service of Dr. Stulb* on the 24th of September and discharged on the 30th of September. She was admitted to the hospital because she had pain in the back of her neck and because she had fever. With this pain there was also complained of considerable stiffness of the back of the neck and general malaise. On account of the rigidity of the neck, plus the headache, plus fever, early meningitis was considered as a possible diagnosis. Spinal puncture was done at once and the spinal fluid was slightly cloudy and under increased pressure. Globulin was 1+, but there were no organisms found in the smear. The next day a second spinal puncture was performed and this time the report showed a cell count of 325 leukocytes, with 60 per cent polymorphonuclear cells. Globulin was still 1+ and the colloidal gold curve was 111111100. The Wassermann reaction was negative. The third spinal puncture was done the following day and the fluid showed a cell count of 75 leukocytes without any other findings of moment. The globulin was negative. This patient remained fever-free after the first day she was in the hospital. She remained so until the time of discharge. The only abnormal physical finding was rather marked rigidity of the muscles of the neck.

COMMENT.

Here were two cases which presented much the same objective and subjective findings. The spinal fluid gave the most direct and positive evidence of poliomyelitis. "The meningeal reaction is probably the first lesion in the disease and is the logical basis of the clinical neck and back signs" (Amoss). We are unaware of any morbid conditions, except poliomyelitis, which would cause an increase in the spinal cell count comparable to the count in these two cases which will be followed by such a prompt drop in the count. So-called meningismus, the authenticity of such a

diagnosis being questionable, does not cause an increase in the polymorphonuclear leukocytes of the spinal fluid. Epidemic, tuberculous or pneumococcic meningitis causes such a reaction but a meningitis caused by one of the usual organisms which produce inflammation of the meninges does not so promptly and immediately disappear as do the symptoms of poliomyelitis, nor does epidemic nor other types of encephalitis. One of the interesting features of poliomyelitis is the very prompt disappearance of the virus from the nasopharynx after the onset of the attack of the disease and the very remarkable and efficient rapid building up by the body mechanisms of defense against the disease, a defense which is so prompt that it is only under exceptional circumstances that, after the initial blow or paralysis, there is any further development of symptoms, a defense which persists throughout life and a defense which is capable of over-manufacturing antibodies to such an extent that only a small amount of blood serum from a patient who has recovered from the disease will abort an attack in a second individual who may have developed poliomyelitis and who is in the pre-paralytic stage of the disease.

CONCLUSION.

The importance of recognizing poliomyelitis is obvious from the point of view of the epidemiology of the disease. It is the mild, abortive and unrecognized cases which presumably are responsible for the spread of poliomyelitis. In questionable instances lumbar puncture should be performed promptly, and even repeatedly, in order to make a diagnosis, which, while not made with the definiteness of such a condition as meningitis in which the organisms are identified, nevertheless it is substantially trustworthy in the majority of instances.

*We are indebted to Dr. Stulb for the privilege of reporting the case.

NEW ORLEANS

Medical and Surgical Journal

Established 1844

Published by the Louisiana State Medical Society under the jurisdiction of the following named Journal Committee:

S. C. Barrow, M. D., *Ex-Officio*
 For one year: W. H. Seemann, M. D.,
 Randolph Lyons, M. D., Secretary
 For two years: John A. Lanford, M. D.
 For three years: S. M. Blackshear, M. D.,
 H. W. Kostmayer, M. D., Chairman.

EDITORIAL STAFF

John H. Musser, M. D. *Editor-in-Chief*
 Leon S. Lippincott, M. D. *Editor*
 Willard R. Wirth, M. D. *Editor*
 H. Theodore Simon, M. D. *Associate Editor*
 D. W. Jones, M. D. *Associate Editor*
 Jacob S. Ullman, M. D. *Associate Editor*

COLLABORATORS—COUNCILORS

<i>For Louisiana</i>	<i>For Mississippi</i>
H. E. Bernadas, M. D.	J. W. Lucas, M. D.
Daniel N. Silverman, M. D.	L. L. Minor, M. D.
C. C. DeGravelles, M. D.	M. W. Robertson, M. D.
J. B. Benton, M. D.	Thomas J. Brown, M. D.
C. P. Gray, M. D.	Willie H. Watson, M. D.
J. H. Slaughter, M. D.	W. G. Gill, M. D.
D. C. Iles, M. D.	Jos. E. Green, M. D.
J. H. Landrum, M. D.	J. W. D. Dicks, M. D.
	D. J. Williams, M. D.

Paul T. Talbot, M. D. *General Manager*
 1430 Tulane Avenue

SUBSCRIPTION TERMS: \$3.00 per year in advance, postage paid, for the United States; \$3.50 per year for all foreign countries belonging to the Postal Union.

News material for publication should be received not later than the twentieth of the month preceding publication. Orders for reprints must be sent in duplicate when returning galley proof.

THE JOURNAL does not hold itself responsible for statements made by any contributor.

Manuscripts should be addressed to the Editor, 1430 Tulane Avenue, New Orleans, La.

THE CARE OF THE INDIGENT TUBERCULOUS PATIENT.

The death rate for tuberculosis in the State of Louisiana is only slightly higher than the death rate throughout the registration area of the United States. In Louisiana there occurs yearly 80 deaths per 100,000 population, as contrasted with 76 elsewhere. This slight unfavorable difference is readily explained by the known higher mortality rate in the negro as contrasted with the white. As a matter of fact, if the negro deaths were omitted the death rate in Louisiana would be considerably lower

than in most states of this country, proving the relative infrequency and the favorable outcome of tuberculosis in the warm, sunshiny and salubrious climate of the far south.

One might speculate on the possibility of considerably lowering the mortality rate were there adequate facilities to take care of the early and late cases of tuberculosis. There should be an increased number of beds for the care of the tuberculous in Louisiana. A satisfactory number of beds in each state is considered to be one for each death that occurs in the state. Twelve states have already obtained this satisfactory condition, and there are several states approaching the ideal which is held to be two beds per death. Minnesota has already obtained this ratio of beds to patient. In Louisiana there are every year approximately 1,800 deaths from tuberculosis. There are approximately, according to the method employed in estimating the number of tuberculous individuals in the community, nine times as many sick from the disease as die. For the care of the indigent tuberculous individual there should be approximately 1,800 beds available. As a matter of fact, there are only about 420 beds that are now in use. Charity Hospital in New Orleans leads the list with 197 available beds. The Pines in Shreveport has a hundred beds, and the Shreveport State Hospital has 48. The new Tuberculosis Hospital at Baton Rouge has in use about 65 beds, and the new Tuberculosis Home in Gentilly, New Orleans, according to available figures, has about 10. There are, however, 280 beds available but which can not be used because of lack of funds. This represents a situation which is unlike any similar condition in the United States. In most places there is difficulty in raising money to get the beds. In Louisiana, although the number of hospital beds is 700, actually there are 280 which can not be used because of lack of support. Louisiana needs more beds than it has, but the crying need at the

present time are funds to maintain and run the beds which could be used had they the support of the state and the community.

Every city, town and hamlet in Louisiana is crying for a place to send their tuberculous patients, not only for those that are far advanced in the disease but also those who are suffering from minimal tuberculosis. If all these different communities were to get together and to urge upon their representatives in the State Legislature the necessity of appropriating funds to take care of those State hospital beds which are not being used, much might be accomplished in securing the additional number of places for the care of the tuberculous. Furthermore, were more beds available, it is possible that the patients who represent the most desirable type of patient from point of view of health conditions in general, namely, the early curable cases of tuberculosis, could be taken care of and the hospital beds would not have to be used almost entirely by the far advanced patient who is dying of tuberculosis without hope of cure and who is hospitalized largely for nursing care.

A NEW MEDICAL JOURNAL.

The Medical Association of the State of Alabama, largely as a result of the efforts of Dr. James Baker, State Health Officer, has started a journal which is published not only for the benefit of the doctors who are members of the State Medical Association but also issued for the purpose of presenting to the medical profession of the State various communications and reports from the State Board of Health. The first four numbers of this new journal have now appeared. The promise that the first number held forth has been maintained in the other numbers of this new volume. The first number contained some extremely interesting scientific presentations and some excellent editorials. The same high standard of articles and editorials has been continued in the subsequent numbers of the Journal. Particularly valuable in each of the several copies of the Journal is the

department conducted by the State Board of Health. In this special section, reports of the various Bureaus are made available for the state doctors, so that each month the physicians of Alabama are made cognizant of what the Department of Public Health is doing. In addition to the information as to what the Department is accomplishing, opportunity is afforded the State Health Officer in charge of administration of pointing out what can be done and what will be done with the cooperation of the state doctors.

The Journal of the Medical Association of the State of Alabama contains approximately 45 pages of printed material. The format is excellent, printed as the work is on high grade of paper with clear and well defined type. The one editorial deficiency seems to be in the book reviews. Perhaps the editors have had some definite purpose in mind in not giving the full details concerning the book which is under review. It adds to the information of the reader of a review if he knows by whom the book was written, the degrees of the author, where the book was published, when it was published, and the number of pages of the book. We have always felt that it might be and should be of further interest to the reader to know the price of the book, because after reading a favorable review he may wish to purchase the volume.

The New Orleans Medical and Surgical Journal extends its best wishes to this new publication of a sister State. We trust that it will have a long life and that a bright future awaits it.

THE MATAS BIRTHDAY VOLUME.

The October number of the American Journal of Surgery has been designated as the Matas Birthday Volume. In this number of the Journal has been published the collection of surgical essays that were written in honor of Dr. Rudolph Matas. The volume will be subsequently bound for permanent preservation for the subscribers.

A distinguished list of contributors has made possible this tribute to the great New Orleans surgeon. Dr. Matas' professional intimates in this country and his friends in Europe, surgeons all of repute and fame, have joined together to make this Festschrift volume a real contribution to medical literature. The volume contains first an excellent picture of Dr. Matas, and then follows an appreciation of Professor Rudolph Matas which is unsigned, but which one rather suspects comes for the pen of Dr. Isadore Cohn, the Chairman of the Committee which arranged for this volume. Following this there are twenty-one scientific contributions. As would be expected, quite a few of these have to do primarily with vascular surgery, and they are presented as a compliment to the foremost vascular surgeon of his generation.

In addition to this particular subject, there are articles on a variety of surgical procedures and topics. They range from splenectomy to operations on the nose, from cancer of the breast to tuberculosis of the ileum. It would be unfair to attempt to select two or three of the articles as being outstanding. They are all excellent as would be anticipated from the names of the authors who represent the most distinguished surgeons of this country, Spain, France, and Italy.

The Matas Birthday Volume represents a very real and permanent expression of appreciation of a great and accomplished surgeon, who is admired and respected throughout the civilized world. The committee who was responsible for the volume has done itself credit as well as paying honor to Dr. Matas.

HOSPITAL STAFF TRANSACTIONS

CHARITY HOSPITAL SURGICAL STAFF.

The regular monthly surgical staff meetings were resumed on October 21, following their discontinuance during the summer months, with election of officers as the only business transacted. Dr. I. M. Gage was elected chairman, Dr. A. H. Gladden vice-chairman, and Dr. G. C. Anderson secretary, all to serve through to September, 1932.

Frank L. Loria, M. D.

TRANSACTIONS OF THE CHARITY HOSPITAL GENERAL STAFF.

The yearly meeting was called to order on the night of November 3, last by Dr. A. E. Fossier, president. After reading of the minutes the president made his annual report in which he called the staff's attention to the fact that the hospital's centennial occurs during the coming year. It was intimated that the staff should take due cognizance of this. The surgical staff failed to make its yearly report. On the other hand the medical staff turned in its customary report. The report of the autopsy committee was made through Dr. J. H. Musser, chairman, who stressed the fact that a prize to the interne securing the greatest number of autopsies should be offered yearly. However, he reported that a greater number of autopsies were done during the past year than formerly. Following this the secretary made his

yearly report. Dr. Arthur Vidrine, superintendent, next addressed the staff. In his report he mentioned the excellent co-operation of the staff, the maintenance of the death rate within figures comparable to those of other great institutions of a similar capacity, and the friendly spirit existing among members of the staff and especially the two medical schools using the hospital for teaching purposes. Following this officers for the following year were elected. Dr. A. C. King was elected president, Dr. E. H. Walet vice-president, and Dr. Frank L. Loria was re-elected secretary-treasurer.

Frank L. Loria, M. D.

SOUTHERN BAPTIST HOSPITAL.

The regular clinical staff meeting of the Southern Baptist Hospital was held Tuesday, October 20, 1931. The first paper was a presentation by Dr. M. P. Boebinger, who discussed "Removal of Growths from Vocal Cord." The second paper on the scientific program was presented by Dr. R. H. Potts, who spoke upon "Acute Miliary Tuberculosis." This paper was discussed by Dr. H. W. E. Walther and Dr. R. M. Willoughby.

Since the last meeting there has been admitted to the hospital 554 patients, 17 of whom died. There were only two autopsies held on those individuals who died in the hospital, a number entirely too small.

The Medical Staff meeting, held November 24, was made up of two papers, the first of which was an extremely interesting case report by Dr. Rena Crawford. This was a patient with Erythrocythemia, who had very extensive clinical studies made and who presented some very interesting roentgen-ray findings. Paper number two on the program was a very complete discussion of Surgical Parotitis by Dr. E. Z. Browne.

It was reported that during the past month there have been 530 patients discharged from the hospital, with 18 deaths. Six of these 18 patients came to autopsy, a percentage of 33.3, a better percentage than has been obtained in recent months.

HOTEL DIEU.

The regular monthly meeting of the Visiting Staff of the Hotel Dieu was held Monday, October 19, 1931, Dr. Theodore J. Dimitry presiding. There were fifty-one members present.

Dr. Lucien Fortier gave an interesting talk on "Obstructions of the Esophagus Produced by Small Hernias of the Stomach through the Diaphragm." These, he stated, occur more often than is generally supposed; many cases of diaphragmatic hernia are reported, but little thought is given to the feature of the esophageal obstruction being caused by them. Even the radiologist will often go over a gastro-intestinal case, look at the cardiac end of the stomach, and then forget it; most of these hernias are caused by the cardiac end of the stomach protruding through a congenital opening in the diaphragm. It is well to take pictures in many positions.

Dr. Fortier described two cases of obstruction of the esophagus, both of which required many examinations before the correct diagnosis could be made. The first showed symptoms that did not tally with obstruction due to ulcer or malignancy, or even cardiospasm; after several examinations (nothing the dilatation of the esophagus and some displacement of the lower end of the esophagus), a filling of the stomach above the diaphragm was encountered. The second case was one of almost complete obstruction of the esophagus with marked dilatation; this likewise required many examinations before the portion of the stomach above the diaphragm could be filled.

Dr. J. B. Guthrie, who had treated one of the cases mentioned, gave a brief history as follows: The patient, a man about 65 years of age, showed symptoms of carcinomatous degeneration, poor digestion, with acute disturbances. The roentgen-ray revealed an unsuspected diaphragmatic hernia; there was irregular retention through a slit in the diaphragm.

Dr. Maurice Gelpi expressed his gratitude to Dr. Fortier for calling attention to diaphragmatic hernias of the stomach, adding that this will explain many previously unexplainable gastric symptoms.

Dr. Louis Levy also described a case of diaphragmatic hernia in a new-born infant; the baby did fairly well until the third day, when gas began to distend the bowel; there was syncope and very short breathing, which were unaccountable except that the abdomen was tympanitic. Dr. Fortier gave a roentgen-ray diagnosis of diaphragmatic hernia, and the autopsy revealed this to be correct.

Dr. Fortier also demonstrated a case of lung abscess producing empyema. A brief history follows: The patient gave evidence of serious trouble in the chest, following a tonsillectomy elsewhere; the first roentgenogram looked more like bronchial pneumonia involving the upper lobe of the right lung; a few days later, a second film showed a definite rounded dense mass and a possible suggestion of fluid level; there was some pneumonitis of the lower lobe of the right lung at that time, and the heart was displaced to the right. With patient on the left side, a definite picture of the abscess of the right lung was obtained. Several weeks later a definite empyema of the right side was noted; after aspiration of approximately 800 c. c. of pus, and injection of air, the fluid level was shown parallel to the floor, indicating adhesions of the lung to the axillary portion of the chest. Fluid could not be removed at this time, and in two days more roentgenograms were made to help in locating the fluid; a lateral view showed the anterior portion clear, all of the fluid lying posteriorly. This roentgenogram also gave an explanation of why no fluid could be aspirated on the second attempt. The lung had become adherent at the site of the first aspiration, which also had caused the displacement of the heart. The now definitely localized pocket was aspirated easily.

Dr. Jerome Landry submitted the following unusual and interesting case: The patient complained of pain in the right shoulder; tentative diagnosis of arthritis was made. He was treated, but became progressively worse; one day he developed a hoarseness and was sent to Dr. Fuchs, who reported paralysis of the vocal cords—a bilateral adductor paralysis, a condition unusually rare, and at the time unexplainable. Treatment was given, but patient suffered continuously, symptoms suggesting an aneurysm.

Dr. Fortier and Gately made a series of pictures looking for the cause of the paralysis of vocal cords, and found a negative chest. The scapular region was examined roentgenologically, and films showed areas of necrosis along the outer

border of the scapular near the tip, making it doubtful as to whether this might be malignancy, necrosis, or osteomyelitis.

Aspiration of the mass was done, and microscopic examination revealed what looked like a sarcoma, but was a bit different from the common type of sarcoma; the examination was made under difficulty, for very little tissue could be drawn out with the hypodermic needle. In this respect, Dr. Louis Levy described a trocar which he has seen demonstrated, with a snare at the end, from which a piece of tissue might be bitten from any depth by simply setting the scale on the trocar, and which he stated would prove very valuable in a case of this kind, or in a liver malignancy.

The growth was exercised with a radio knife and immediately all pains subsided. The paralysis of the cord, however, did not pass away. On microscopic study of the tumor, it was found to be a chordoma. After this operation, roentgen-ray examination of the chest showed it still negative for any laryngeal trouble.

About five weeks after the resection the man began suffering with severe pain in the chest—so bad that he was taking about 12 gr. of morphine daily. He has a recurrence with metastatic growth in neck and axilla, and all over his body; the condition now appears to be starting in the groin.

Dr. Maurice Couret, in describing chordomas, stated that they are not frequently seen. This particular tumor, he stated, was of the malignant type, and most certainly would have the tendency to metastasize, as has happened.

Dr. J. T. Nix was asked to give his impressions of the Convention of the American College of Surgeons in New York City, which he has just attended. He compared the meeting to a twelve-ring circus, in which only a small part of one ring can be seen by any one person. He was, of course, particularly interested in surgery, and gave some very enlightening points on the subject, from discussions had at the convention. For example: (a) An oblique transverse incision for gall bladder work, a great improvement on the usual longitudinal or mid-rectus incision; (b) a new instrument for resection of the stomach, consisting of a large clamp that inserts staples in the stomach in two parallel lines; when the clamp is removed, both surfaces of the stomach are clamped, the cautery is used, and the wound speedily closed. In the Mayo clinic, the mortality for gastric resections is now but 5 per cent as compared with 60 per cent fifteen years ago, when the Polear technic was first introduced.

He quoted Dr. Cutler, who spoke on surgery of the heart, mentioning four conditions in which surgery of the heart is indicated: First, puncture wounds, causing blood to pour into the pericardium and mechanically stopping the heart; if the operation is performed in time to open the pericardial sac to let the blood out, the patient can be saved. Second, in cases of angina pectoris, fair results are obtained by resecting the superior cervical sympathetic ganglia. Third, suppurative pericarditis, which is seldom recognized until after death. If the diagnosis is made sufficiently early, however, a simple trephine opening from above, just at the lower end of the sternum, about 1 in. in diameter, opening the pericardial sac and inserting a drain, will work a cure. Fourth, in cases of mitral stenosis, he advised the use of what he calls an "Endocardialvalvotome." Punctures are made and tags clipped off the mitral valve, producing mitral regurgitation. There is only one successful instance of this operation, however; it was tried ten times when the patients would almost surely have died otherwise.

He quoted Dr. Chas. Mayo on life extension, and Dr. Beasley of Philadelphia on traumatic surgery, whose axiom "Safety Afterwards," as well as "Safety First"—by selecting the right hospital, is worth remembering.

Dr. Nix also mentioned the tendency to build medical centers and schools in the vicinity of hospitals, indicating the Presbyterian Hospital, the New York Medical Center, composed of Columbia U., College of Physicians and Surgeons, Squires, and the Children's Hospital—and Cornell University, which is now building a hospital and medical center at a cost of \$50,000,000.

He repeated the warning of Professor Angel, president of Yale, to the effect that the present tendency to make matriculation in the medical schools increasingly difficult, is creating cults and giving these cults a place in society.

Drs. E. Souchon, R. Unsworth, and O. C. Cassegrain discussed an interesting brain case, giving a history of severe headache with occasional vomiting. The pathological spinal fluid showed a neutrophile count, and on two occasions contained a considerable amount of blood but no pus. Apparently, it was a case of cerebral lesion (probably an abscess), as indicated by weakness of the right hand. There was no paralysis. The unusual feature is that there was no defect in the conscious field—no cloudiness—no unconscious moments. Localized pressure was indicated, so Dr. Cassegrain performed a craniotomy, and after an exploratory puncture, evacuated 50 c. c. of yellow fluid.

In due course, the patient died. The autopsy showed at first, surprisingly, an extensive cere-

bral hemorrhage; further autopsy showed a localized area of necrosis which was beginning to form a definite abscess; the case was an unaccountable one of cerebral embolus in the anterior lobe rather deeply seated, with a softening of the brain at that point; one of the branches in the internal vessel was clogged. The hemorrhage on the external part of the brain may be easily accounted for by the cutting off of the part in circulation and an attempt at anastomosis and widening of these vessels. The final diagnosis given was cerebral embolus with softening.

H. Theodore Simon, M. D., Secretary.

FRENCH HOSPITAL.

A regular meeting of the French Hospital Staff was called to order Friday, October 30, 1931, Dr. H. B. Alsobrook presiding in Dr. M. J. Lyons' absence. Those present were: Drs. J. N. Ane, H. B. Alsobrook, J. W. Atkinson, C. J. Brown, A. V. Friedrichs, F. Gallo, P. Graffagnino, R. L. Gordon, J. R. Grigg, H. W. Harris, H. W. Kostmayer, L. J. Menville, M. O. Miller, F. A. Overbay, J. P. Palermo, Reid, D. N. Silvermann, W. R. Strange, C. J. Tardo, N. J. Tessitore, L. M. Thomason, M. L. Stadiem and E. L. Zander.

The minutes of the last meeting were read and approved. The secretary read the reports of deaths and discharges. Two cases of interest were opened to general discussion; a case of Acute Appendicitis and another of Leiomyoma of Uterus with Chronic Endocervicitis and Salpingitis. These deaths were discussed by Drs. Alsobrook, Brown, Kostmayer, Graffagnino and Atkinson.

The scientific program for the evening was a paper presented by Dr. H. W. Kostmayer on "Remarks on Office Gynecology." Dr. Kostmayer stated that endocrines give brilliant results in patients suffering from dysmenorrhea, amenorrhea, etc. In poorly nourished, neurotic, high strung individuals he employs ovarian compounds or lutein tablets, extracts of corpus luteum. For obese, phlegmatic patients he includes thyroxin with the lutein or ovarian products.

He then took up the treatment of the cervix and retrodisplacement of the uterus in the office. Dr. Kostmayer found that iodine or glycerine and occasionally nitrate of silver can be applied to the cervix with good results. Hunner's cauterization is best employed for a deeply infected cervix, but can also be used in the office. The use of the pessary in handling retrodisplacement of the uterus is three fold—diagnostic, palliative and curative. The patient should be kept under observation and should take a daily cleansing douche when using a pessary. However, the con-

traindications for the use of the pessary are inflammation of the pelvis and discomfort.

There being no further business the meeting adjourned.

Cuthbert M. Brown, M. D.

THE GEORGE C. HIXON MEMORIAL HOSPITAL.

The regular monthly meeting of the staff of the George C. Hixon Memorial Hospital of Electric Mills, Mississippi, was held on October 30, 1931. After discussing the monthly hospital report and analyzing the important case reports, the following special case report was presented by Dr. Chas. E. Baldree, Jr.

Patient: White, male, aged 20 years.

Chief Complaint: (1) Swelling of neck (general); (2) general soreness of body.

History of Chief Complaint: Onset acutely about 4 a. m., September 2, 1931, while patient was sleeping in a moving truck. The truck ran into a concrete bridge, throwing patient against truck bed. The impact of the blow was received on right side of chest posteriorly. Immediately after this, patient's neck began to enlarge, and entire body became sore. The patient, assisted by his companion, walked about two miles before securing means of transportation to the hospital.

Physical Examination: Well developed, well nourished; lying in bed; complains of swelling of neck and general body soreness. Appears fairly comfortable and not in acute pain.

Head-Scalp: No evidence of injury. Face: Slight pallor, slight cyanosis of lips. Neck: Markedly enlarged and upon palpation there is crepitation throughout the subcutaneous tissues. There was no congestion or venous stasis in veins of neck.

Thorax: Resp. normal, 20 per minute. Expansion apparently free and equal. Palpation: Crepitation throughout subcutaneous tissues of chest; tenderness and pain on deep pressure over sixth and seventh ribs posteriorly. Heart: No displacement. Rate and rhythm normal; no murmur. B. P. 120/80. Lungs negative.

Abdomen: Crepitation obtained on palpation throughout the subcutaneous tissue. Scrotum: Enlarged to four times normal size; crepitation on palpation; no evidence of fluid in same.

Extremities—Upper extremities: Forearms to the wrists presented crepitation on palpation, and slight cyanosis of the finger nails. Lower extremities from hips to knees revealed crepitation in subcutaneous tissues. The hands, legs and feet were free of crepitation on palpation.

Skin: No evidence of injury to the skin.

Roentgen-ray of Chest: Reveals fracture of the sixth and seventh ribs in the posterior mid-scapular line. Approximation of the fragments good. No evidence of pneumothorax or haemothorax. Lung expansion good. Air content normal. Both sides of diaphragm normal height; costo-phrenic angles not obstructed. Heart and aorta normal. No displacement.

Laboratory: Urine, September 2, 1931: Reaction acid; sp. gr., 1.023; albumin, 1-plus; sugar negative; granular casts, 2-plus (coarse); hyaline casts, 1-plus; 4 to 5 blood cells per h.p.f.

Clinical Course: Patient was admitted to hospital September 2, 1931, 6 a. m., approximately two hours after accident, at which time temperature was 100° F., pulse 100, resp. 20. Patient was given morphia, gr. ¼ hypo. At no time thereafter did he complain of anything but general soreness of body. Patient expectorated whitish, tenacious sputum for about two days, at no time excessive or alarming. The temperature, pulse and respiration never went higher than on admission. Patient remained quiet in bed, receiving a light diet. On third day temperature, pulse and respiration became normal. His convalescence until time of discharge was uneventful. Patient left hospital on fifth day feeling greatly improved. However, the emphysema had practically subsided.

DISCUSSION.

Dr. Hasie: The chief source of interest in this case, in my opinion, was the manner in which the injury was sustained. I cannot conceive of any cause for the emphysema, other than a ruptured lobe, bronchus or trachea, and yet the roentgen-ray showed no pneumothorax and there was no evidence of tracheal or bronchial injury. The probable explanation is spontaneous rupture of a few alveoli from the impact with resultant leakage of air into the pleural cavity and escape into the soft tissues through a punctured wound of the parietal pleura, due to one of the fractured ribs. All other cases of generalized subcutaneous emphysema that I ever saw were due to trauma to the trachea or lung, with either partial or complete pneumothorax or tracheal fistula, and in practically all cases the patients died from intercurrent broncho-pneumonia. It was very gratifying to see this case clear up so nicely without any complications.

Dr. A. M. McCarthy: I have had occasion to observe several cases of generalized emphysema resulting from thoracic trauma, but I have never seen one that showed such marked degree of air infiltration. The air is usually detected in the subcutaneous tissue as a fine crepitus, but in this case we observe actual ballooning. The roentgenograms demonstrate a layer of air between chest wall and skin, approximately one-half inch

thick, and even greater than this over the anterior abdomen. It is indeed surprising how little reaction the patient showed to the extensive trauma from cellular separation that his air dissection must have produced. Because of the fact that the emphysema began in the neck, and the absence of pneumothorax, I am inclined to believe that the leak was extrapleural, into the mediastinum. From the mediastinum the avenue of least resistance is into the neck, and once this avenue of escape was opened, the extent of infiltration progressed rapidly to trunk and extremities.

Conclusions by Dr. Baldree: The interesting features of this case were:

(1) The degree in which injury was sustained; (2) the apparent mild degree of shock following injury; (3) the slight degree of cyanosis and no venous congestions of veins of neck or elsewhere; (4) the marked degree of emphysema with subsidence of same, and no complications.

VICKSBURG SANITARIUM AND CRAWFORD STREET HOSPITAL.

Staff Meeting, November 9, 1931.

Abstract—Postoperative tetany: Dr. J. A. K. Birchett, Jr.

Patient: Colored, female, aged 56; five children living, one dead; housewife.

Chief complaint: Palpitation of heart with shortness of breath for past six months.

History of Principal Complaint: Six months ago began to notice shortness of breath and rapid heart action on slightest exertion. Has been unusually nervous and is getting worse; least little excitement makes her "go to pieces." Has lost sixty pounds in weight; appetite has been good; no digestive disturbance. No cough. For past month there has been swelling of ankles and some swelling of wrists. Has been under unusual strain during the past year from nursing a sick son who subsequently died.

Past History: Six normal deliveries; no serious illnesses except slight attack of influenza and malaria. General health excellent up until onset of present illness.

Family History: Father died at age 80 of old age; mother died at age 40 of pneumonia. One son died of tuberculosis. No cancer in family. One sister living and well.

Physical Examination: Temperature, 98° F.; pulse, 160, weak; blood pressure, 160/90; respiration, 18. Fairly well developed and nourished. Head: No abnormalities except slight arcus senilis of corneae; tonsils small, atrophic. Poor

teeth, apparently no abscesses. Neck: No palpable glands; marked pulsation of juglar veins. Thyroid enlarged but not markedly. Lungs: Normal. Cardio-vascular: No marked arterio-sclerosis; heart very rapid, regular; no murmurs; impulse rather weak. Abdomen: Negative; no fluid. Pelvis: Uterus small, forward, no masses, no tenderness, slight leucorrhea. Reflexes: Negative. Skin: Very cool and moist; no pitting; no eruption.

Procedure: This case was admitted for general workover with a tentative diagnosis of myocarditis, nephritis, and hyperthyroidism.

Laboratory findings: Urine negative. Blood Wassermann, Kline and Young, and Kahn tests negative. Leukocytes, 12,900; differential leukocyte count, small lymphocytes, 13 per cent; monocytes, 4 per cent; polymorph. neutrophils, 82 per cent (35 immature); polymorph. basophiles, 1 per cent; erythrocytes, 4,000,000; hemoglobin, 75 per cent; blood urea nitrogen, 21 mg. per 100 c.c.

Basal metabolism: DuBois standard, plus 31 per cent; Harris-Benedict standard, plus 40 per cent. At time of basal metabolism determination pulse was 84.

Electrocardiographic reading was suggestive of thyroid disease.

After ten days of observation, patient showed so much improvement on lugol's solution and rest that she was allowed to return to her home, there to stay in bed and continue the lugol's solution, ten minims, three times a day.

In two weeks patient was again observed without improvement in general condition. There was still evidence of hyperthyroid disease. Basal metabolism determination showed no improvement, the rate being DuBois standard, plus 41 per cent; Harris-Benedict standard, plus 56 per cent. Pulse rate at this time was 82.

With this lack of improvement, it was decided to hospitalize the patient until the basal metabolic rate dropped within operative range. This was accomplished in two weeks, the rate then being DuBois standard, plus 29 per cent; Harris-Benedict standard, plus 39 per cent.

Operation: Under local infiltration and gas anesthesia, subtotal lobectomy was done. A thin layer of thyroid tissue adherent to posterior capsule was left. The operation was well borne, the pulse not being over 100 when patient left the table.

Postoperative Course: Very stormy for 48 hours; general condition was good except for increasing rapidity of heart action and usual temperature rise. The usual postoperative administration of glucose and control of pain. Seventy-two hours postoperative, heart began to fibrillate, with rate too rapid to count; respiration was rapid and there was mental irritation—a typical thyrotoxic exacerbation. Here large doses of lugol's solution were given, 0.5 dram by mouth every

8 hours, until improvement was noticed, with large intramuscular injections of digitalone for the fibrillating heart. In lieu of the oxygen chamber, the Roth-Barach oxygen tent was used, with marked improvement in respiration and improvement of circulation. After 72 hours of the above treatment with gradual decrease of digitalone and lugol's solution, there was a slow and gradual improvement. On the thirtieth postoperative day, the patient, after being allowed to sit in a chair, began to complain of numbness and spasms of arms and hands and drawing of muscles of the face. This condition passed off, only to be observed again the following day. We became suspicious that this might be an early postoperative tetany although we felt at operation that enough thyroid had been left to retain the parathyroids in place. Following the administration of calcium chloride, 10 grains in the veins, and calcium by mouth, most of the tetany symptoms cleared up.

On the thirty-sixth postoperative day patient was allowed to go home. She has been observed there where she has had a resumption of the muscle spasms and pains in the arms. Treatment now consists of large doses of calcium lactate by mouth, under which patient is gradually showing improvement.

Discussion—Postoperative tetany is becoming more common due to the fact that more complete thyroidectomies are being done, because of the tendency of remaining thyroid tissue to become an abnormally functioning tissue with continuance of symptoms. When these radical procedures are done, the recurrence of thyroid symptoms are reduced to a minimum but unfortunately the parathyroids are interfered with and tetany may result. Objective symptoms which are transient in character are frequently met with following maximal thyroidectomy. Mild discomfort usually lasts for a short time, generally a few weeks to months. The more severe and lasting cases of tetany form the most unfortunate sequelae of thyroid surgery. These cases are invalids, afflicted with spasms and paraesthesias and with the possibility of development of general convulsions and cataracts. It is interesting to note that pregnancy relieves tetany and that tetany is worse at menstrual periods.

Abstract—Meningitis (*Streptococcus*), Complicating Otitis Media and Mastoiditis: Dr. G. C. Jarrett.

Patient: White, female, aged 10 years; admitted to the hospital September 27, 1931, at 4 p. m.

Chief Complaint: Fever; running right ear; convulsions.

Present Illness: Six weeks before admission child's right ear became painful; associated with a very high temperature. Three days later the drum ruptured and the ear began to drain and

has drained since in varying amounts. Child has been under the care of an otolaryngologist. After the ear began to drain, temperature became normal and has remained normal since except for occasional flare-ups to 100° F. Child during this interval has been up playing and going to school until ten days ago when she began to complain of photophobia, at intervals only. The child was taken out of school but was up and about until day before admission, when she awakened in the morning drowsy and with fever of 106° F. Temperature remained up during the day and in the afternoon there were twitchings of the left arm with some paralysis of the right eyelid. No complaint of tenderness or soreness over the right mastoid at this time. The above twitching lasted for a short time but since then up to time of admission, the child has been irrational at times and very irritable. For past two days there has been no drainage from the right ear and no pain. The temperature has been between 104° and 106° F. since the rise 24-hours before admission.

Past History: No contagion and no illness of any consequence except an occasional cold.

Family History: Irrelevant.

Physical Examination: Well developed and fairly well nourished child in stupor and irrational, but oriented as to whereabouts and recognizes family. Tossing about and very fretful and wants to be left alone.

Head: Normal. Eyes: Pupils equal and react to light and accommodation; no nystagmus or strabismus; follow objects with no lagging; lids not drooped. Nose: Very red membrane but no edema or discharge. Ears: The left tympanic membrane normal; right tympanic membrane red, bulging, no landmarks seen, no sagging of posterior canal wall, no point of drainage. Mouth: Teeth fair; tonsils removed; no deviation of the tongue on protrusion; posterior nasal drip; acetone breath; lips cherry red. Neck: Several small glands felt; some stiffness. Chest: Expansion good and equal. Lungs: No rales; no bronchophony; no dullness. Heart: No murmurs or enlargement. Abdomen: Spleen and liver not palpated; no masses or tenderness. Extremities: Normal. Genitalia: No discharge or redness. Skin: Dry and tissue turgor poor; no rash. Central nervous system: Knee jerks normal; no ankle clonus; some stiffness of neck; no muscular weakness or spasticity; negative Babinski and Brudzinski. Mastoids: No edema; no redness; no swelling or tenderness over either mastoid. Examination of eye grounds by Dr. C. J. Edwards showed some edema of left eye ground; no choked disc right or left.

Blood: Erythrocytes, 5,184,000; hemoglobin, 77 per cent; leukocytes, 20,500; small lymphocytes, 11 per cent; large lymphocytes, 4 per cent; polymorph. neutrophils, 85 per cent. Urine: Trace

of albumin, occasional pus cells, some finely granular casts, few fresh blood cells.

Spinal puncture was done and 15 c.c. of clear fluid withdrawn; no increased pressure. Examination of fluid showed: Cell count, 6; differential cell count, lymphocytes, 100 per cent; globulin increased (++) ; sugar diminished (+) ; no organisms were found in stained smears and culture was negative.

The right tympanic membrane was incised and a profuse discharge of pus and blood occurred. The child was given 400 c.c. of 10 per cent glucose intravenously.

Course and Treatment: September 28: Temperature 99° F.; urine negative except for slightest trace of acetone; child much improved, rational and ate good breakfast; no swelling or pain over mastoid; right ear draining pus; stiffness of the neck less; no nystagmus; no ankle clonus; knee jerks normal. Gave 400 c.c. of 10 per cent glucose intravenously. Roentgenogram of the sinuses and mastoids negative.

September 29: Temperature 99° F.; had been up in P. M. yesterday to 102° F. Urine negative; leukocyte count, 11,800, with polymorph. neutrophils, 74 per cent, large lymphocytes, 4 per cent, small lymphocytes, 22 per cent. Right ear draining a tenacious stringy, purulent material. Taking nourishment and rational and talking. No tenderness, redness or swell over the right mastoid. Complaining of pain in the right hip but no swelling, redness or pain upon passive motion. Right ear drum reopened in p. m. to facilitate drainage as pus was very thick and tenacious.

October 1: Child running temperature up to 103° F. in P. M. with temperature normal in A. M. Right ear draining poorly although opening good and pus very thick and tenacious. Lungs, heart, abdomen, nose, throat normal. No abnormal reflexes; pupils equal; no nystagmus; stiffness of neck still present but to less degree than on admission. No redness, swelling or tenderness over the mastoid; no pain of jugular bulb. With fever continuing, thick drainage from the ear, and a long standing process, I believe mastoidectomy indicated.

October 2: Temperature 102.8° F. and up to 103.6° last night. Leukocytes, 19,000; polymorph. neutrophils, 58 per cent; large lymphocytes, 2 per cent, small lymphocytes, 37 per cent; large mononuclears, 3 per cent. Roentgenogram of the mastoid reveals increased density of the right mastoid cell. Some tenderness over the right mastoid, especially in the tip, but no redness or edema. Right ear drum opened but no drainage. Mastoidectomy, right done by Dr. C. J. Edwards, with finding of pus, necrosis and eburnation of the mastoid cell. Cultures from the mastoid pus showed numerous gram positive bacilli and a few gram positive diplococci.

October 3: Temperature 102° F. Child resting nicely; taking nourishment; rational but fretful. No pathological reflexes. Mastoid and right ear draining profusely.

October 5: Temperature 103° F. in P. M. and 101° F. in A. M. Mastoid draining satisfactorily; ear not draining but drum open. Child up in wheel chair in room, taking nourishment. Very irritable but no pathological reflexes except stiffness of neck and pain upon moving from side to side.

October 6, 9 P. M.: Temperature 105.4° F.; patient very irrational and fretful and crying out. Positive Kernig's sign; ankle clonus in right foot; negative Babinski and positive Brudzinski; marked stiffness of neck; no nystagmus; pupils equal but dilated. Eye grounds negative. Spinal puncture done and 6 c.c. of turbid fluid withdrawn under no increased pressure.

Spinal fluid showed globulin increased (4-plus); cell count, 558; differential cell count, polymorphonuclears 29 per cent; large mononuclears, 5 per cent; lymphocytes, 66 per cent; culture showed profuse growth of streptococci (non-hemolytic).

Blood: Leukocytes, 22,200; polymorph. neutrophils, 81 per cent; lymphocytes, 13 per cent; large mononuclears, 6 per cent.

Urine negative except for slight trace of acetone.

Diagnosis: Septic meningitis.

October 7: Temperature 104° F.; child comatose and when aroused cries out with a shrill cry of increased intracranial pressure; knee jerks increased; bilateral ankle clonus; pupils equal but dilated; positive Brudzinski. Whole citrated blood, 300 c.c., given intravenously from suitable donor.

October 8: Temperature 104.6° F.; flaccid paralysis of the right arm; twitchings of left side of body. Right pupil larger than left and fixed and left reacts sluggishly. Bilateral ankle clonus; stiffness of the neck; knee jerks hyperactive and positive Kernig's sign. Both mastoid and ear dry, with no drainage. Child comatose for past 24 hours and cries out when attempt to move is made.

Child later developed a flaccid paralysis of left arm and both lower extremities and remained in coma until death on October 10th, at 6:45 A. M.

Autopsy refused.

RUSH'S INFIRMARY, MERIDIAN.

A diagnostic clinic was held at Rush's Infirmary, Meridian, on November 3. This meeting was largely attended by local, county, state, and out-of-state visitors. The program included the presentation of the following cases:

(1) Dr. D. W. McDonald, Quitman. White, male, age 52, cauliflower growth of the face, size of ten cent piece. No pain, 2 years' duration. Discussion led by: Dr. W. R. Holladay.

(2) Dr. W. A. McMahon, Union. Boy, white, with blood stream infection. Temperature persisted for one year. Discussion led by: Dr. T. G. Cleveland.

(3) Dr. B. D. Pace, Meridian. White, male, age 50, ill 2 months. Hyperesthesia of fingers and toes, followed by symmetrical weakness of all extremities and gradual onset of flaccid paralysis. Muscle atrophy and marked in thenar eminences and calf muscles. Discussion led by: Dr. W. J. Cavanaugh.

(4) Dr. D. L. Walker, Meridian. White child, age 6 years. Six days ago parents noticed lack of co-ordination in walk. Physical examination negative except for weakness of both legs and diseased tonsils. Acute attack of tonsillitis September 1st. Discussion led by: Dr. Schmidt.

(5) Dr. T. C. Alford, Mashulaville. White, male, age 55 years. Two years ago developed a large abdomen with large palpable masses and ascites. Has had two laparotomies since the removal of two gallons of gelatinous material. The masses are very large at present with matting of the viscera. Discussion led by: Dr. H. Lowry Rush, Meridian.

(6) Dr. G. L. Arrington, Meridian. Male child, white, age 6 months. Illness began one month previously, with various symptoms. Child in pain. Severe conjunctivitis. Restless, eyes protected from light all the time. Crying. Pale and anemic. Flabby. Rhinitis. Submaxillary and cervical glands enlarged. Tonsils inflamed. Heart rapid. Feet and hands cold and clammy. Pink erythema of hands. Few small papules around fingernails. Discussion led by: Dr. H. F. Tatum, Meridian.

(7) Dr. J. M. Long, Riderwood, Alabama, and Dr. S. T. Miller, Yantley, Ala. Colored, female, age 15 years. Multiple round ulcers of the body and extremities. Discussion led by: Dr. J. T. Bailey, Meridian.

(8) Dr. J. M. Long, Riderwood, Ala., and Dr. S. T. Miller, Yantley, Ala. Flattening of the head of the femur with coxa vara following injury to the hip two years previously. Discussion led by: Dr. Leslie V. Rush, Meridian.

(9) Dr. J. M. Long, Riderwood, Ala., and Dr. S. T. Miller, Yantley, Ala. Child with enlarged spleen. Discussion led by: Dr. T. D. Boudreaux, Meridian.

(10) Dr. I. N. Jones, Greensboro, Ala. Child, age 11 years. Anemic. Recurrent hemorrhages from the stomach followed by abdominal distention. Ascites. Splenomegaly. Positive hookworm. Discussion led by: Dr. L. Hart, Meridian.

(11) Dr. G. T. Pruitt, Collinsville. White, female, age 14 years. Lung affection of 4 years' duration. Discussion led by: Dr. F. G. Riley, Meridian.

(12) Dr. R. L. Fowler, Marion. Heart case. Discussion led by: Dr. James Sennett, Meridian. Charles T. Burt, Secretary.

TRANSACTIONS OF ORLEANS PARISH MEDICAL SOCIETY

CALENDAR.

- December 4—Pathological Conference, Hotel Dieu, 11 A. M. to 12 Noon.
- December 4—Physiology Seminar, Tulane Medical School, 5 P. M.
- December 7—Eye, Ear, Nose and Throat Hospital Staff, 8 P. M.
- December 9—Touro Infirmary Staff, 8 P. M.
- December 11—Pathological Conference, Hotel Dieu, 11 A. M. to 12 Noon.
- December 11—Physiology Seminar, Tulane Medical School, 5 P. M.
- December 11—French Hospital Staff, 8 P. M.
- December 14—ORLEANS PARISH MEDICAL SOCIETY, 8 P. M.
- December 15—Charity Hospital, Medical Section, 8 P. M.
- December 16—Charity Hospital, Surgical Section, 8 P. M.
- December 17—New Orleans Hospital Council, Marine Hospital.
- December 17—Eye, Ear, Nose and Throat Club, 8 P. M.
- December 18—Pathological Conference, Hotel Dieu, 11 A. M. to 12 Noon.
- December 18—I. C. R. R. Hospital Staff, 12 Noon.
- December 18—Mercy Hospital Staff, 8 P. M.

During the month of November, besides the regular meeting of the Board of Directors, the Society held two regular scientific meetings.

The following program was presented at the meeting held November 9.

The Clinical and Social Aspects of Vulvovaginitis in Children, with the Outline of a Special Method of Treatment.

By.....Dr. J. Thornwell Witherspoon.

Discussed by Drs. C. Jeff Miller, Rena Crawford and Monte Meyer.

Disappointments in Cancer Surgery.

By.....Dr. Isidore Cohn.
Discussed by Drs. Denegre Martin, A. C. King and closed by Dr. Cohn.

Clinical Experiences with Avertin.

By.....Dr. Frank L. Loria.
Discussed by Drs. I. M. Gage, M. J. Gelpi, R. A. Cutting, Isidore Cohn, A. C. King and closed by Dr. Loria.

Dr. Fletcher, Professor of Psychology, Newcomb College, spoke on the needs of the Community Chest.

Dr. Valeria Parker of the National Social Hygiene Association addressed the members.

At the meeting held November 23 the following program was presented:

Headaches of Ocular Origin.

By.....Dr. Chas. A. Bahn.

Some Deductions from the Analysis of 1,850 Physical Examinations.

By.....Dr. O. W. Bethea and by invitation Dr. W. R. Hardy.

NOMINATIONS OF OFFICERS FOR 1932.

The following nominations were handed in to the Secretary:

President—Dr. John A. Landford, endorsed by Drs. H. A. Bloom, W. P. Bradburn, F. L. Fenno, Paul J. Gelpi and T. B. Sellers.

1st Vice-President—Dr. E. L. King, endorsed by Drs. E. H. Lawson and M. P. Boebinger.

1st Vice-President—Dr. Louis Levy, endorsed by Drs. Frank Chetta, Jules Dupuy and Paul J. Gelpi.

2nd Vice-President—Dr. Waldemar R. Metz, endorsed by Drs. G. B. Collier and J. Kelly Stone.

3rd Vice-President—Dr. Daniel N. Silverman, endorsed by Drs. E. McC. Connely and C. L. Peacock.

Secretary—Dr. H. Theodore Simon, endorsed by Drs. Frank Chetta, Paul J. Gelpi, M. J. Lyons and P. T. Talbot.

Treasurer—Dr. Frederick L. Fenno, endorsed by Drs. P. J. Carter, Frank Chetta, and W. R. Metz.

Librarian—Dr. Jules E. Dupuy, endorsed by Drs. Paul J. Gelpi and H. Theodore Simon.

Librarian—Dr. Alton Ochsner, endorsed by Drs. I. M. Gage, H. B. Gessner and H. W. Kostmayer.

Additional Members, Board of Directors.

Dr. H. B. Alsobrook, endorsed by Drs. S. M. Copland and A. V. Friedrichs.

Dr. Emmett Irwin, endorsed by Drs. Frederick L. Fenno and Shirley C. Lyons.

Dr. Walter E. Levy, endorsed by Drs. Emile Bloch and L. C. Chamberlain.

The following delegates and alternates to the Louisiana State Medical Society were elected:

Delegates—

Dr. John A. Lanford
Dr. F. M. Johns
Dr. E. L. King
Dr. Henry Daspit
Dr. Chaile Jamison
Dr. M. T. Van Studdiford
Dr. W. H. Seemann
Dr. Emmett Irwin
Dr. E. D. Fenner
Dr. Isidore Cohn

Alternates—

Dr. J. Birney Guthrie
Dr. I. I. Lemann
Dr. John Signorelli
Dr. Homer Dupuy
Dr. J. T. Nix
Dr. I. M. Gage
Dr. T. B. Sellers
Dr. Lucien A. LeDoux
Dr. G. B. Collier
Dr. H. W. E. Walther

Election of these officers will take place Saturday, December 12. Balloting shall take place between 10:00 A. M. and 12:00 Noon; 2:00 and 5:00 P. M. and 7:00 and 8:30 P. M.

Following the election the Annual Dinner of the Society will be held. Dr. Paul Gelpi is Chairman of this Committee. Please make your arrangements to be present at this banquet.

November 18, 19, and 20 the Southern Medical Association met in New Orleans. A most interesting program for the three days was presented. The registration during the meeting was very good.

The Committee on Arrangements for the Southern Medical Entertainment worked very hard to make the meeting the success it was. The sub-

committees cooperated to the fullest extent with the General Chairman, Dr. Fenno.

The following applications for membership are posted:

ACTIVE MEMBERSHIP—Drs. Frederick S. Herrin, E. Garland Walls, John F. Oakley and J. W. Atkinson.

ASSOCIATE MEMBERSHIP: Drs. Jos. Strickler and L. J. Schoeny.

INTERNE MEMBERSHIP: Drs. L. J. Bristow, Nancy Campbell, Jeanne C. Roeling, Carroll F. Gelbke, C. G. Johnson, Paul S. Parrino and G. E. P. Barnes.

H. Theodore Simon, M. D.,
Secretary.

LOUISIANA STATE MEDICAL SOCIETY NEWS

H. Theodore Simon, M. D., Associate Editor.

THE PRESIDENT'S LETTER.

To the Medical Profession of Louisiana:

In a letter just received a few days ago from Dr. Musser, the Editor of the Journal, he makes the suggestion that each month a page of the Journal shall be set aside for communications from the President of the Society, to be known as the "President's Page."

This appeals to me as a suggestion of much merit and I have accepted the offer, hoping by my efforts, to make it worth while and see it work into a permanent policy on the part of the Journal and those who will succeed me in the office.

It may be that what will appear on this page for the next six months, will be of little value, but at least it will tend to remind those who need reminding, that a State Association exists and that there are doings in the State Society other than on the annual meeting days.

Contact by this means with the membership, may bring about a feeling of closer acquaintanceship; acquaintanceship is necessary to friendship and where friendship exists, men with the same interest and engaged in the same work, accomplish more.

The work of the President of the State Society is in reality, a big job and it makes one who respects responsibilities, sorrow when he finds himself so impotent to carry on as he would like. However, the reassuring thought comes that there is no task too big for an united organized group of doctors such as we have in Louisiana.

Organization and united effort can accomplish any task we set ourselves, and while the suggestion from our friend and cooperative Editor, for a President's Page, reached me too late for a definite formula this month. I am here at least to greet you and make my bow, not only to the members of the State Society, but every legally qualified physician in the state, the Woman's Auxiliary, its members and prospective members. May we find you soon, one and all, active in the ranks of the Louisiana State Medical Association and the Woman's Auxiliary.

S. C. Barrow, M. D., Pres.
Louisiana State Medical Society.

NOTE.

The President of the Louisiana State Medical Society has very kindly consented to write each month a letter to the Louisiana doctors about some current topic or some phase of scientific, social, economic or ethical medicine which he wishes to call to the attention of the profession of the state. We are delighted that Dr. Barrow has consented to do this. Last year when Dr. Howard was President of the Mississippi State Medical Association his monthly letter was read with much interest by the Mississippi doctors. We are sorry that Mississippi has discontinued this practice. We hope that Dr. Barrow will establish a precedent which will be maintained permanently.

IMPORTANT NOTICE.

The Executive Committee of the Louisiana State Medical Society at a meeting held November 18, according to instructions from the House

of Delegates, dispensed with the regular scientific meeting for 1932 and arranged for a business meeting of the House of Delegates and President's Address on May 9 and 10. This immediately precedes the meeting of the American Medical Association in New Orleans in 1932, which occurs on May 9-13, inclusive.

NOTICE.

According to the By-Laws of the Louisiana State Medical Society, dues for the fiscal year of 1932 are now due. Secretaries of the various Parish Medical Societies should begin at once to collect the annual State dues of \$7.00 from its members for 1932, and remit as promptly as possible to the Secretary-Treasurer at 1430 Tulane Avenue, New Orleans. Any members from unorganized parishes are requested to send in their dues direct to the Secretary-Treasurer of the State Society.

In view of the fact of the meeting of the American Medical Association in New Orleans in 1932, we would strongly urge that you make unusual efforts not only to get in the active members early, but attempts should be made to secure new members who are not presently aligned with organized medicine. We should have these in very promptly, in order that their names might be properly certified to the American Medical Association so that they may be able to attend and enjoy the full privileges of the meeting in 1932. Also protection under our Medical Defense Act, subscription to the Journal, and other unusual privileges are covered only from the time ones dues are received by the Secretary-Treasurer of the Louisiana State Medical Society.

GROUP INDEMNITY INSURANCE.

The Committee on Group Indeminty Insurance has been authorized by the Executive Committee of the Louisiana State Medical Society to arrange for a group indemnity insurance policy with the United States Fidelity and Guaranty Company of New York. Members of the Society who are interested in medical protective insurance are informed that they can communicate with this company, which has its office in the Canal Bank Building, New Orleans, Louisiana. Low rates have been secured on the basis of a group of 50 minimum.

UROLOGISTS ORGANIZE.

On October 26, in the Board Room of the Orleans Parish Medical Society, the New Orleans Urological Society was organized with seventeen charter members present. The officers elected for the ensuing year are: Dr. Frank J. Chalaron, chairman; Dr. John G. Pratt, vice-chairman; and, Dr. Robert M. Willoughby, secretary-treasurer.

The charter members include: Drs. H. T. Beacham, Edgar Burns, F. J. Chalaron, R. L. Gordon, E. J. Huhner, P. J. Kahle, Joseph Hume, H. J. Lindner, R. J. Mailhes, A. Mattes, E. P. McCormac, C. L. Peacock, J. G. Pratt, R. F. Sharp, W. A. Reed, E. B. Vickery, H. W. E. Walther, R. M. Willoughby and M. Wolf.

The society proposes to extend its privileges not only to every urologist in New Orleans but aims to have, as associate members, every urologist in Louisiana. The dues will be \$5 a year.

Applications for membership should be addressed to: Dr. R. M. Willoughby, 1326 Whitney Bank Building, New Orleans.

AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.

The following program has been arranged for the meetings of Section N (medical) of the American Association for the Advancement of Science. These papers will be presented Tuesday morning, December 29, 1931. On Tuesday afternoon there will be a joint meeting of Section N and the American Society of Parasitologists. Both meetings will be held in the Auditorium of the Hutchinson Memorial. The American Association for the Advancement of Science meeting in New Orleans during Xmas week will probably be the largest meeting held in New Orleans during 1931. At these yearly metings from 4,000 to 7,000 scientists and their families are registered. There are innumerable sections representing science in all forms from astronomy to zoology, botany to physics. Section N is the section devoted to medicine.

Chairman's Address.

Dr. Charles W. Duval—Allergic Nephritis.

Dr. Rigney D'Aunoy—Observations on Reynal's Factor.

Dr. Bruce Webster—Follicular Hormone in Menopause and Ovarian Insufficiency.

Dr. Harley N. Gould—Age of Onset of Menstruation in Mothers and Daughters.

Dr. Henry Lauren and Dr. I. I. Lemann—The Effect of Radiant Energy on Blood Pressure.

Dr. Cyld Brooks—Recent Advances in the Applied Physiology of Joints.

Dr. Leon J. Menville—Roentgen-Ray Experimental Studies Showing that Rachitic Rats with Healed Bone Lesions Continue to Show Alterations in Their Gastro-intestinal Tracts.

Dr. H. H. Beard and Dr. Victor X. Myers—Observations on the Anemia of Pregnancy in Rats.

NEW ORLEANS GYNECOLOGICAL AND OBSTETRICAL SOCIETY

The first meeting of the New Orleans Gynecological and Obstetrical Society for the season 1931-32 was held at Hotel Dieu on Thursday, November 12, at 8 o'clock, the following papers having been presented:

1. "The Post-Operative Separation of Classical Cesarean Section Scar with Subsequent Abdominal Pregnancy. Report of Two Cases" by Dr. E. L. King. Discussed by Dr. C. Jeff Miller.
2. "Fibroma of the Ovary. Report of Cases" by Dr. H. B. Alsobrook. Discussion by Dr. R. D'Aunoy.
3. "Dermoid Cyst. Case Report" by Dr. M. A. A. Young. Open discussion.

NEWS ITEMS.

Dr. H. Daspit, Dean of the Graduate School of Medicine of The Tulane University of Louisiana participated in a Medical Institute held at Rutherford Hospital, Murfreesboro, Tenn., November 23 and 24, 1931, presented papers entitled "Epidemic Encephalitis in General Practice"; and "Preventive Medicine Aspects of Psychiatry" and held a Neuro-psychiatric Clinic.

Dr. Walter E. Levy, Associate Professor of Obstetrics in the Graduate School of Medicine of The Tulane University of Louisiana attended the meeting of the American College of Surgeons held at New York, October 12-16, 1931.

Dr. O. W. Bethea, Professor of Therapeutics in the Graduate School of Medicine of The Tulane University of Louisiana, delivered an address at Oxford, Miss., Thursday, October 29, 1931, on "Recent Development of Diagnosis in Chest Diseases."

One of the interesting radio broadcasting events of the week is the Sunday night talk by Dr. Haggard, Associated Professor of Applied Physiology, Yale University. Under the topic of Devils, Drugs and Doctors, Dr. Haggard discusses Sunday evening at 9:00 P. M. various phases of medicine. Dr. Haggard is an author of repute, a most talented writer. His broadcasts are extremely interesting and well thoughtout. They may be obtained in printed form by referring to the Eastman Kodak Company, Rochester, New York, under whose auspices these broadcasts are given.

A Board convened at the Marine Hospital November 2, 1931, for the purpose of examining candidates to determine their fitness to enter the regular corp of the Public Health Service. This Board was composed of Surgeon T. B. H. Anderson, Surgeon Y. Hollingsworth, and Past Assistant Surgeon G. H. Faget.

RESOLUTIONS ON DEATH OF DR. NICOLLE.

WHEREAS God, in His infinite wisdom, has seen fit to remove from our midst Henry Teche Nicolle, a valuable and esteemed member of the Sixth District Medical Society, and whereas Doctor Nicolle by his regular attendance at our meetings and his contributions to our medical knowledge has made him an outstanding figure at our scientific gatherings. Therefore be it

RESOLVED; That in the death of Doctor Nicolle the Sixth District Medical Society as well as organized Medicine has suffered an irreparable loss. Be it further

RESOLVED; As a mark of respect to our deceased brother, we dedicate a silent prayer in open meeting to his memory. Be it further

RESOLVED; That these resolutions be spread upon the minutes of our society, a copy of same be sent our official journal for publication, Our lady of the Lake Sanitarium and to his bereaved family, to whom we extend the heartfelt sympathy of his confreres who admired and loved him.

SIXTH DISTRICT MEDICAL SOCIETY,

Glenn J. Smith, M. D., Chairman;
C. A. Weiss, M. D.,
Lester J. Williams, M. D.

WHEREAS, Almighty God, in His infinite wisdom, did on the third of August see fit to remove from us our friend and colleague, H. T. Nicolle; and whereas

We have long recognized in Dr. Nicolle those fine attributes and excellent traits which characterize the Noble man; and, whereas,

By his genial, kind and amiable disposition, and his brave and courageous spirit he has endeared himself to all who were associated with him; and whereas,

By his love for study and devotion to duty, and because of the high plain of efficiency upon which he conducted his professional work and scientific study; therefore be it

RESOLVED; That his associates and colleagues of the Medical Staff of Our Lady of the Lake Sanitarium do sorely lament and deeply deplore his untimely death; that the entire profession of Louisiana lost one of its most valued members; the Hospital and Training School will remember him as their truest and most loyal friend. Be it further

RESOLVED; That the members of this Staff extend their sincere and heart-felt sympathy to his grief-stricken wife and children. Be it further

RESOLVED; That a copy of these resolutions be forwarded to his family, a copy be given to the Medical press and a copy filed in the proceedings of this Staff.

Signed Tom Spec Jones, M. D., Chairman;
C. A. Weiss, M. D.,
Lester J. Williams, M. D.,
E. O. Trahan, M. D.,
R. C. Kemp, M. D.,
W. K. Irwin, M. D.,
H. Guy Riche, M. D.

HEALTH OF NEW ORLEANS.

The Department of Commerce of the Division of Vital Statistics reported 140 deaths in New Orleans the week ending October 17, with a death rate of 15.6. Seventy-four of the deaths were in the white and 66 in the colored. Ten of the deaths were of children under one year of age. For the week ending October 24, 120 deaths occurred in the city of New Orleans, 74 among the white and 47 in the colored population. This gives a death rate of 13.5, which corresponds most favorably with the death rate in other American cities. In this same week there were 5 deaths of children under one year of age, an infant mortality rate of 27. For the week of October 31, the death rate of New Orleans was almost the same as the preceding week, there being two more deaths in the city, giving a death rate of 13.6. Sixty-four of the deaths were in the white and 58 in the colored population. The death rate among the white was 10, and the colored 22.5, illustrating very well indeed why the death rate in the Southern cities is considerably above the death rate in the Northern and Eastern cities with a relatively small colored population. The week ending November 7 saw a big jump in the number of deaths in New Orleans. There was a total number of 165, giving a death rate of 18.4. Sixteen of the deaths were in children under one year of age, giving an infant mortality rate of 88. The death rate of the white citizens was 15.5, and of the colored 25.5.

INFECTIOUS DISEASES IN LOUISIANA.

Dr. J. A. O'Hara has issued weekly morbidity reports which briefly are abstracted below. During the week ending October 24, 1931, there were reported 90 cases of syphilis, 61 cases of diphtheria, 57 of pulmonary tuberculosis, 31 of typhoid fever, 48 of malaria, and 22 of cancer. The typhoid fever cases were reported from various parishes throughout the state. Orleans, Webster, and West Carroll parishes reported the largest number, 4 each. The week ending October 31 saw a marked reduction in all of the reportable diseases except typhoid fever, which had increased to 36 cases. Syphilis had dropped down to 12, tuberculosis to 25, malaria to 26, and diphtheria to 43. There

were only 19 cases of pneumonia reported, and one case of smallpox. Twenty-four instances of scarlet fever were listed this week. For the week ending November 7 the outstanding features of the weekly report are as follows: 36 cases of diphtheria were reported, 38 of malaria, 13 of pellagra, 37 cases of pneumonia, 49 instances of tuberculosis, 23 of scarlet fever, and 37 cases of syphilis. The typhoid fever report was the best for many weeks, only 17 cases being reported. For the week ending November 14 the following was the important and most frequent reportable diseases: Diphtheria 44, influenza 11, malaria 10, pneumonia 40, tuberculosis 59, scarlet fever 47, syphilis 16, typhoid fever 25, and 5 cases of cerebro-spinal meningitis.

LOUISIANA FOLLOW-UP OF THE WHITE HOUSE CONFERENCE.

Under the aegis of the Louisiana State Board of Health, Dr. J. A. O'Hara held at Baton Rouge on the 13 of November an all-day symposium on public health and medical care of the child. The first paper that was presented was read by Dr. J. R. McCord of Emory University on "Parental and Maternal Care." Dr. L. J. Moorman, dean of the Medical School of the University of Oklahoma, then discussed "Tuberculosis in Children." Both of these two papers were thoroughly discussed. In the afternoon, Dr. C. C. Applewhite of the U. S. Public Health Service presented the topic of "Public Health Organization in Relation to Child Welfare," and Dr. S. J. Crumline of the American Child Health Association of New York introduced the subject of "A National Survey of the Use of Preventive Medicine and Dental Service for Pre-school Children." The third paper on the afternoon program was read by Dr. John Signorelli, head of the Department of Pediatrics of the Louisiana State University Medical School, on "Preparing Child's Health for School." The last subject had to do with "Milk Control," and was presented by Mr. C. L. Clay of the Louisiana State Board of Health.

Dr. O'Hara is to be congratulated upon his wisdom and his industry in promptly following up the White House conference on Child Health and Preparation. If there is anything to come out of this White House conference, results only can be obtained by such procedure as this following up the result and study of the conference with detailed programs by authorities on this subject. If other public health officials are as foreseen as Dr. O'Hara, the White House conference will be of inestimable value to the medical profession.

QUARTERLY BULLETIN OF THE LOUISIANA STATE BOARD OF HEALTH.

The Quarterly Bulletin of the Louisiana State Board of Health has just been sent out to the

medical profession throughout the State. This is a splendid little pamphlet, which would repay the physician well if he reads it attentively. A lot of good advice is given, as the editor, Dr. J. A. O'Hara, has selected excerpts of certain publications which, while succinct, are educating. The reports of the several departments of the State Board of Health are published in this quarterly. A very good bird's eye view of the death rate, births, reportable diseases and other things of interest that are reported to the Board of Health may be obtained by a rapid glance through the pamphlet.

THE SOUTHERN MEDICAL ASSOCIATION.

The 25th annual meeting of the Southern Medical Association came to a close Friday, November 20, to meet next year in Birmingham, Ala. The meeting this year was one of the most successful the organization has ever held. Great credit is due to the New Orleans doctors, and particularly to Dr. Fred Fenno, who was the efficient General Chairman of the Committee on Arrangements. In recognition of his splendid work, Dr. Fenno was honored by election to the position of first vice-president. The ladies of the Woman's Auxiliary also should receive the thanks of the visiting doctors and their wives for their unselfish devotion to the interests of visitors, and for the splendid program of entertainment that they provided for the visiting ladies. The following Louisiana doctors appeared on the program:

Homer Dupuy, W. W. Butterworth, Charles J. Bloom, E. Denegre Martin, E. D. Fenner, Alton Ochsner, Emmett Irwin, J. T. Nix, Henry Daspit, Gilbert Anderson, Joseph Hume, W. A. Reed, Sidney K. Simon, C. Jeff Miller, H. W. Kostmayer, Henry N. Blum, Basil C. MacLean, W. R. Brewster, J. Birney Guthrie, I. I. Lemann, J. H. Musser, B. G. Efron all from New Orleans; Chaillie Jamison, Allan Eustis, R. R. Roberts, J. A. Danna, Robert A. Strong, B. G. Efron, John Signorelli, L. R. DeBuys, Charles J. Bloom, A. L. Levin Daniel N. Silverman, William H. Harris, Morris Shushan, Foster M. Johns, Charles S. Holbrook, W. J. Otis, also from New Orleans; R. C. Young, Shreveport; A. A. Herold Shreveport; W. F. Henderson, Urban Maes, E. C. Samuel, J. N. Roussel and M. T. Van Studdiford, from New Orleans; James A. Graves, Monroe; J. A. Danna, Isidore Cohn, E. D. Fenner, H. Theodore Simon, E. S. Hatch, J. T. O'Ferrall, P. A. McIlhenny, T. B. Sellers, Raymond Hume, Philip Jones, E. L. King, W. E. Levy, Hillard E. Miller, John A. Lanford, A. A. Caire, Jr., Phillips Carter, M. J. Gelpi, all from New Orleans; Harvey T. Best, Shreveport; Frank H. Walke, Shreveport; Charles

A. Bahn, George B. Collier, William A. Wagner, Jules Dupuy, F. E. LeJeune, Frederick L. Fenno, J. A. O'Hara, W. H. Robin, L. L. Lumsden, E. C. Faust, Charles F. Craig, all from New Orleans; J. J. Sanders, Caspiana; Charles W. Rees, Jeanerette; Hans A. Kreis, E. H. Hinman, C. W. Duval, and C. C. Bass, from New Orleans.

THE AMERICAN COLLEGE OF PHYSICIANS.

The Sixteenth Annual Clinical Session of the American College of Physicians will be held in San Francisco, California, April 4-8, 1932. The headquarters in San Francisco will be the Palace Hotel, where the general scientific sessions, registration, and exhibits will be held. Clinics will be conducted in various hospitals and institutions in San Francisco and near-by communities.

Dr. S. Marx White, Minneapolis, President of the College, has in charge the selection of speakers and subjects on the general program, while Dr. William J. Kerr, San Francisco, Professor of Medicine at the University of California Medical School, is the general chairman of the session, and is responsible for all local arrangements, in addition to the arrangement of programs and demonstrations. Following the San Francisco session a post-convention tour will be conducted through Yosemite Valley, Southern California (with two days in Los Angeles) and the Grand Canyon of Arizona.

ZINC CHLORIDE PASTE.

Several requests have come to the Journal for the exact formula of the paste that Dr. J. W. Warren uses in "The Treatment of Rectal Fistula" (New Orleans Medical and Surgical Journal, May, 1931, p. 771). Dr. Warren informs us that the formula for this paste is as follows:

Zinc Chloride	7 per cent
Powd. Saguinaria	20 " "
Powd. Charcoal	2 " "
5 per cent Scarlet Red Oint...	4 " "
Oleo Mucilaginous Base.....	67 " "

This oleo mucilaginous base is composed of wheat flour, Wesson oil and water to a pasty consistency. Variations of strength, of course, are due to the evaporation of water, which later should be readded when about to use the paste.

WOMAN'S AUXILIARY.

The Woman's Auxiliary to the Orleans Parish Medical Society again showed a large attendance when they met November 11 at the interesting home of Mrs. Ralph Hopkins in the lovely garden district of New Orleans. Final plans for the entertainment of the Southern Medical Association were discussed.

Armistice Day was observed by the usual silent minute of respect.

A splendid report was given by the chairman of the Philanthropic Committee showing that they have been doing unusually good work during October. Also the collection and delivery of samples of drugs has progressed almost beyond our expectations. A luncheon was announced in honor of Dr. Edward Keyes, President of the American Social Hygiene Association to be given at La Louisiane, November 21, at twelve o'clock and the members of the Auxiliary were urged to attend.

It was decided to co-operate with the Social Hygiene Society of New Orleans and subscribe \$5, thereby becoming a sponsoring member.

It was also announced that an extensive program on this work would be given at The Roosevelt, December 1, 2 and 3, under the auspices of Dr. H. W. E. Walther, co-operating with Dr. Valerie Parker of New York, who is in New Orleans for a short time to establish this necessary work. The Auxiliary meeting was attended by about one hundred and forty members and, after a too short talk by Dr. James Plant, director of Essex Juvenile Clinic of Newark, New Jersey, on "Child Psychiatry," they were entertained by musical and vocal selections and the meeting adjourned to enjoy some delicious refreshments.

We welcome Bastrop, our youngest member in this column, and delight to print that a meeting was held in the home of Dr. and Mrs. Miller at Bonita, where the members enjoyed a talk on health given by Dr. Miller. They are, of course, just starting out, and as yet have not decided on the kind of auxiliary work they will emphasize, but the alacrity in which they are co-operating in answering the request for items for publicity shows they are wide awake and bound to be one of our most active auxiliaries.

JAMBALAYA.

A gavel was presented to the president of the Auxiliary to the Orleans Parish Medical Society by an anonymous donor.

Mrs. W. W. Butterworth and Mrs. Hamilton P. Jones have accepted the joint chairmanship of

the lecture committee so the Orleans Parish Auxiliary is assured of excellent programs.

The Orleans Parish Auxiliary is exulting in the recovery of their past President, Mrs. J. A. Storck, who has been ill for a number of weeks.

It is interesting to learn that through the efforts of the different auxiliaries the subscriptions to *Hygiea* are 50 per cent more than they were last year at this time.

This is a work which should be paramount with every auxiliary and all the *Hygiea* data may be obtained from the National President, Mrs. A. B. McGlothlan, 821 N. 24th St., St. Joseph, Missouri, or the National Chairman for Hygiene, Mrs. Rogers N. Hebert, 1509 Stratton avenue, Nashville, Tennessee.

To extend *Hygiea* is the one request that has come to us from the American Medical Association and it should be the goal of all our auxiliaries.

As we are growing in numbers we improve in our efficiency and we congratulate the Woman's Auxiliary to the Kentucky State Medical Association for their truly deserved praise from the State Board of Health of that State, which was printed in their November Bulletin, and we hope in the near future that the Louisiana Auxiliaries will gain just such commendations.

From Pennsylvania comes the news of the outstanding philanthropic work of the Dauphin County Auxiliary and that this committee has been untiring in their work for the Tuberculosis Society.

Our National President, Mrs. A. B. McGlothlan, made an eighteen days' trip through the western and northwestern States and was delighted with the work that has been done there—finding splendid co-operation from the different State Medical Associations. Oregon's Woman's Auxiliary to the State Medical Society has also been sent resolutions of appreciation for their invaluable services.

Mississippi has come over the top with a contribution of \$2,500 by the Auxiliary to the prevention fund for the Sanitarium. May we praise their laudable efforts!

MISSISSIPPI STATE MEDICAL ASSOCIATION NEWS

L. S. Lippincott, Editor

Jacob S. Ullman, Associate Editor

D. W. Jones, Associate Editor

THAT WE MAY KNOW EACH OTHER BETTER.

Dr. James Thomas Brown was born on a farm near Coffeeville, Miss., on March 15, 1832. His ancestors were pioneers in this section, having settled there in 1831. Dr. Brown attended the common schools of the country but further education was interrupted by the death of his father when he was 17 years of age. Being the oldest boy, he was left as the head of a family with younger brothers to educate.

Dr. Brown studied medicine at the Memphis Hospital Medical College under the tutelage of Drs. R. B. Maury, William E. Rogers, Frank L. Sims, Alexander Erskine, and others of rare medical attainments. He received his diploma in medicine from this institution on Feb. 26, 1886, and was licensed to practice on April 5, 1886.

On December 7, 1887, Dr. Brown married Miss Jimmie Bibby, daughter of Dr. F. P. Bibby of Coffeeville. There are three daughters and all are living.

After four years of practice at and near Coffeeville, Dr. Brown located in Grenada on Jan. 7, 1890, where he has remained since, carrying on to the honor of his profession in the service of humanity. He is at present county health officer.

CHRISTMAS GREETINGS.

At the last meeting of the Mississippi State Medical Association, contributing editors for our Journal were authorized for each county in the State. Such editors were to be appointed by the presidents of the component societies. We have 82 counties (too many!) and of these 57 are now (on paper!) represented by county editors follow-

ing presidential appointment. But this does not mean that we actually have 57 county editors, for 24 have never been heard from at all in the seven months since the last meeting of the State Association.



JAMES THOMAS BROWN, M. D.,
Grenada, Mississippi
Councilor, Fourth District
Mississippi State Medical Association.

A county editor's duties is to report each month all medical happenings in his county. It may be that these delinquent editors are so busy that they have no time for reports. If so — congratulations! We wish we had as much to do. But we suspect it is just lack of interest and spirit of co-operation. It takes a few minutes each month. Doctors are always being told how much they do for others—how much they give in unselfish service. Do we really deserve such praise?

Below is given the per cent efficiency records of the county editors so far as their usefulness to the Journal is concerned for the past seven months.

Standing of County Editors.

Adams—L. Wallin, 86 per cent; Alcorn—J. R. Hill, 0; Amite—P. Jackson, 14; Attala—

C. A. Pender, 29; Benton—F. Ferrell, 0; Calhoun—Vacant, 0; Carroll—J. P. T. Stephens, 0; Chickasaw—W. C. Walker, 14; Choctaw—J. J. James, 29; Claiborne, W. N. Jenkins, 43; Clay—S. R. Deanes, 0; Copiah—W. L. Littell, 43; DeSoto—A. V. Richmond, 0; Franklin, C. E. Mullins, 0; Grenada—T. J. Brown, 43; Hancock—C. M. Shipp, 0; Harrison—C. McCall, 29; Hinds—A. G. Wilde, 0; Holmes—R. C. Elmore, 0; Issaquena—W. H. Scudder, 14; Itawamba—N. W. Nannery, 0; Jackson—B. S. McIlwain, 14; Jefferson—R. B. Harper, 0; Lafayette—F. E. Linder, 0; Lauderdale—C. T. Burt, 29; Lawrence—B. S. Waller, 0; Lee—A. J. Stacy, 0; Lincoln—W. H. Frizell, 14;

Lowndes—J. W. Lipscomb, 14; Madison—A. P. Durfee, 43; Marshall—D. R. Moore, 0; Monroe—G. S. Bryan, 86; Montgomery—S. S. Caruthers, 0; J. O. Ringold, 14; Neshoba—J. S. Hickman, 29; Newton—S. A. Majure, 14; Nuxabee—J. D. Green, 0; Oktibbeha—H. L. Scales, 14; Panola—G. H. Woods, 29; Pike—L. J. Rutledge, 43; Pontotoc—R. P. Donaldson and E. B. Burns, 86; Prentiss—R. B. Cunningham, 29; Rankin—H. N. Holyfield, 0; Scott—W. C. Anderson, 0; Sharkey—W. C. Pool, 29; Stone—S. E. Dunlap, 0; Tate—W. D. Smith, 14; Tippah—C. M. Murry, 0; Tishomingo—K. F. McRae, 29; Union—H. P. Boswell, 0; Walthall—B. L. Crawford, 0; Warren—E. H. Jones, 86; Webster—W. H. Curry, 57; Wilkinson—S. E. Field, 14; Winston—M. L. Montgomery, 72; Yalobusha—G. A. Brown, 0; Yazoo—C. M. Coker, 57.

Presidents of Medical Societies are asked and urged to check this list and then to have a heart-to-heart understanding with their editors. Delinquent editors should be told frankly that if they are not able to carry on for the good of our Journal, that they are to be replaced and then they should be replaced at once. There are men in every community who can and will aid the cause of organized medicine in a responsible manner.

As for the presidents of Societies who have ignored every and repeated requests for appointment of editors, a new year will soon be here. Resolve to carry out your duty as specified by the State Association. Sit down today. Appoint an editor for each county in your jurisdiction. Notify the men chosen of their appointments, letting them know that you expect their counties to be on the map each month. Also please notify the editor for Mississippi of your appointments. Show before your year as president is finished that you are actually president.

Your editors are working hard to give you a Journal worthy of Mississippi. Give us a little co-operation.

But for all your failings, we love you still and sincerely wish for you and yours

A MERRY CHRISTMAS.

CALENDAR.

December 1: Claiborne County Medical Society, 3 p. m.; Staff of King's Daughters' Hospital, Brookhaven, 7:30 p. m.

December 2: Staff of Chamberlain-Rice Hospital, Natchez; Staff of Vicksburg Infirmary, 7:30 p. m.; Staff of Rush's Infirmary, Meridian, 7 p. m.; Staff of Dr. F. G. Riley's Children and Maternity Hospital and Clinic, Meridian, 7 p. m.

December 3: Pike County Medical Society, McComb, 7:30 p. m.

December 4: Natchez Medical Club, 1 p. m.

December 7: Jackson County Medical Society, 7:30 p. m.; Staff of Meridian Sanitarium, 7 p. m.; Staff of Jackson County Hospital, 7:30 p. m.

December 8: Joint meeting of the Fifth District Medical Society of Louisiana and the Issaquena-Sharkey-Warren Counties Medical Society, Vicksburg; Staff of Natchez Sanatorium, 7 p. m.; Winston County Medical Fraternity, Louisville.

December 9: Staff of King's Daughters' Hospital, Greenville, 7 p. m.

December 10: Staff of Vicksburg Sanitarium, 6:30 p. m.; Staff of Vicksburg Hospital, 7:30 p. m.; South Mississippi Medical Society, Hattiesburg, 3 p. m.

December 11: Staff of Anderson Infirmary, Meridian, 7 p. m.

December 15: Staff of Natchez Charity Hospital, 8 p. m.; North East Mississippi Thirteen Counties Medical Society, Tupelo, 2 p. m.

December 17: East Mississippi Medical Society.

December 18: Natchez Medical Club, 1 p. m.

AN EDITOR TALKS.

(Continued from last month)

(From The Preparation of Papers on Medical Subjects: How to Make Them Interesting As Well As Instructive.—The Editor Talks, by Dr. George L. Richards, Fall River, Mass.).

"THE DISCUSSION.

"Pleasant remarks on the paper and how we have enjoyed it and what a wonderful contribution it is to the subject are quite in order at the beginning or end of the discusser's remarks, but when the material is being set up for permanent reference in a scientific publication, be it medical journal or volume, they have no force and should be omitted.

"The following is an example taken from the excellent New England Journal of Medicine, of May 23, 1929.

" 'I have enjoyed the papers of the evening very much indeed and feel that although much has been written on this subject there is always something we can carry away with us of value. I am sure the other members present feel as I do, that we have learned a great deal tonight.'

"Very pleasant remarks and no doubt justified but they add nothing to the value of the discussion, so why take the reader's time or put the Journal to the expense of reproducing them.

"It has been my own practice, as perhaps you have noticed in reading your discussion as printed in our volume, to omit such paragraphs as well as remarks which are not pertinent to the subject of the paper. It is, of course, the stenographer's duty to take them down. I think it is the editor's duty, when he makes up his material for the printer, to omit them.

"The proceedings of the Royal Society of Medicine of England, which are a model for conciseness, contain none of this complimentary material, but the discussion is always directly to the point. Perhaps one of the reasons for this is that no stenographer is, as a rule, present at the meetings, and the discussors are asked to write out their remarks immediately after making them and hand in to the secretary.

"Where lantern slides are the main feature of a paper, whether of charts or illustrations, the paper should be prepared in two forms, one for reading and the other for printing. The paper intended for printing should be accompanied with clear drawings of such illustrations as are desired, with typewritten legends on the back and proper references to each one in the text and in proper order. All illustrations should be marked as to top and bottom, as in many cases the proper position is not clear to editor or printer unless so marked.

"Bibliographic references should be referred to by number in the text."

Mrs. Mellish-Wilson of the Mayo Clinic has written an excellent little manual entitled "The Writing of Medical Papers," published by W. B. Saunders Co. Every contributor to medical literature should own and study this book.

FROM OUR PRESIDENT.

"Dr. Leon S. Lippincott,
"Vicksburg, Mississippi.

"Dear Mr. Editor:

"I was very much interested in Dr. Gaudet's letter which was published in the November Journal. The first paragraph of this letter referred to a statement made by me that I had operated on twenty cases of appendicitis in my hospital and received the sum of \$50.00 for the twenty cases. I am afraid I did not make my position quite clear. My discourse was on Community Hospitals. I had, previous to the above statement, explained the fact that the indigent sick in North Missis-

sippi and other sections of the state, remote from the State Charity Hospitals, were being cared for by the private hospitals, many of which are owned and maintained by physicians. Those of us in these counties are paying taxes to maintain charity hospitals in the central and southern parts of the state and are at the same time being forced to take care of the charity in our own communities.

"In order to stress the desperate condition of the people in these communities, I gave as an example the fact that of the surgery which I did in July and August of this year, I operated on twenty-two emergency cases of appendicitis. One of these patients paid me \$75.00 for the operation and another gave me a post-dated check for \$12.50 which proved to be no good. However, this check has been paid since the above statement was made, after I forced collection. From Dr. Gaudet's letter I infer that he was left under the impression that the amount of money collected was for hospital expenses and my fees. This is not true. Every one of the patients paid the hospital fees. The \$75.00 plus \$12.50 represents my remuneration for the twenty-two cases, an average of \$3.98 per case.

"Next, as to my statement that surgeons are charging too much, our regular charge for an appendectomy in this community is \$125.00. Let us suppose that each of the above cases was able to pay the regular fee. This would have been \$2750.00. These patients all came from the rural districts of this and adjoining counties. I know them all personally. They are farmers or are members of farming families. There is hardly a farmer in this territory this year who will clear \$100.00 above his actual necessities and I will include in 'necessities' his bill for medical attention by his family physician. The majority of the farmers this year will not even have enough money to pay their taxes, food, clothing and school expenses. In other words, when they have to undergo an operation they know it is impossible to pay a large fee and will, therefore, make no effort whatever to pay. On the other hand, if the surgeons will get together on their charges and reduce their fees to fit the income of their patients I believe the patient will make a greater effort to pay. Many of these patients who are not able to pay our regular fees would feel less embarrassed and humiliated if they were required to pay even a small fee.

"Dr. Gaudet says that something is wrong. Unquestionably so!

"What we need today is a better understanding, first among ourselves and then between the physicians and the laity. We must keep the ideals

of our profession on the same high plane that they have always occupied but we must realize that there is a business side, separate and distinct from the professional side, which must be put on the same basis as all other commodities.

"As for the statistics, showing the cost per capita per family for medical care, they are not worth the snap of your fingers when it comes to collecting what a poor farmer in Mississippi owes on his doctor's bill.

"My only source of income is from surgery and yet, today, I am not worried for my own welfare. I am worried about the physician, who through the summer's heat and the winter's cold, through sunshine and rain, through sleet and snow, answers the summons from day to day the year round, and then in the Fall of the year renders his bill for services, only to learn that what little the patient has left, if any at all, must make a part payment on a note held by the surgeon. What I have said does not in any way apply to the rich class, who are able to pay, nor to the salaried man, who could or should have a budget. But I have reference to the vast majority of people in Mississippi who make their living on the soil and who depend upon its resources for a livelihood."

John C. Culley.

MISSISSIPPI STATE HOSPITAL ASSOCIATION COMMITTEES—1931-1932.

Legislation: Dr. W. W. Crawford, Hattiesburg; Dr. V. B. Martin, Picayune; Dr. R. H. Foster, Laurel; Dr. W. J. Anderson, Meridian; Dr. John C. Culley, Oxford; Dr. W. G. Brewer, Columbus; Dr. C. A. McWilliams, Gulfport; Dr. G. A. Brown, Water Valley; Dr. J. S. Ullman, Natchez; Dr. J. Gould Gardner, Columbia; Dr. Hugh A. Gamble, Greenville; Dr. A. Street, Vicksburg; Mr. Loyde Spivey, Canton; Dr. E. Hayes Wesson, New Albany; Dr. V. B. Philpot, Houston; Dr. George Adkins, Jackson; Katherine White Spinner, R. N., Biloxi; Dr. W. H. Frizell, Brookhaven.

Community Hospitals: Dr. A. G. Payne, Greenville, Chairman; Dr. C. M. Speck, New Albany; Dr. E. S. Bramlett, Oxford; Dr. Wade H. Sutherland, Booneville; Gus Hansen, Canton; Dr. George Rembert, Jackson; Dr. C. E. Catchings, Woodville; Dr. J. W. D. Dicks, Natchez.

Charity Hospitals: Dr. B. B. Martin, Vicksburg, Chairman; Dr. J. A. Rayburn, Natchez; Dr. Roland Cranford, Laurel; Dr. R. W. Smith, Canton; Dr. H. F. Tatum, Meridian; Dr. F. S. Hill, Grenada; Dr. M. L. Flynt, Newton; Dr. E. E. Benoist, Natchez.

Minimum Standards: Dr. George W. F. Rembert, Jackson, Chairman; Dr. Joe Frazier, Canton; Dr. S. T. Lyles, Oxford; Dr. E. R. McLean, Cleveland; Miss Ethel Saunders, Meridian; Will H. Speck, New Albany; Dr. R. J. Field, Centreville; W. A. Lowry, Natchez; H. Ogden, Hattiesburg; Dr. Paul Gamble, Greenville; Dr. W. K. Stowers, Natchez.

Co-Operative Buying: W. Hamilton Crawford, Hattiesburg, Chairman; Lena Divine, Canton; Dr. E. S. Bramlett, Oxford; D. H. Hall, New Albany; Miss Beadie Sprayberry, Houston; W. S. Webster, Winona; Dr. H. N. Mayes, New Albany; O. T. Hamner, Water Valley; Dr. P. Beekman, Natchez.

Official State Recognition: L. O. Crosby, Picayune, Chairman; Maude T. Varnado, R. N., Laurel; Isidore Perlinsky, Canton; Dr. W. W. Phillips, Oxford; Dr. H. P. Boswell, New Albany; Dr. J. W. Barksdale, Jackson; W. B. Robinson, Centreville; Dr. R. D. Sessions, Natchez.

Collection of Accounts: G. D. Stanley, Greenville, Chairman; E. C. Parker, Canton; E. J. Stephens, New Albany; Dr. J. R. Williams, Houston; Miss Ferris Cotter, Jackson; Dr. F. B. Long, Starkville, W. Hamilton Crawford, Hattiesburg; Francis Martin, Vicksburg; Dr. L. S. Gaudet, Natchez.

Publicity: Dr. C. D. Williams, Jr., Hattiesburg; R. J. Rodgers, Canton; Dr. Frank P. Ivy, West Point.

Publication: Dr. J. W. Barksdale, Jackson, Chairman; Dorothy Cinkowski, R. N., Hattiesburg; W. Hamilton Crawford, Hattiesburg; Dr. W. K. Stowers, Natchez.

History: Dr. Henry Baby, Hattiesburg, Chairman; Miss Maude A. Brunner, R. N., Brookhaven; Miss Ora Burris, McComb; Dr. J. W. D. Dicks, Natchez.

Hospital Visitors: Dr. E. W. Holmes, Winona, Chairman; Mrs. R. E. Spivey, Canton; Dr. W. A. Carpenter, Cleveland; Rev. Wayne Alliston, Jackson; Mrs. J. D. Greene, Starkville; Dr. J. K. Oates, Laurel; Mrs. Grace Moss, R. N., Gulfport; Mrs. Hattie G. Bauer, R. N., Natchez; Miss Mary Roane Thornton, R. N., Starkville; Miss Helen Moliere, Vicksburg; Dr. H. M. Smith, Natchez.

Standard Supplies and Equipment: Dr. John B. Howell, Canton, Chairman; Dr. J. P. Wiggins, Cleveland; A. Toomer, Houston; Mrs. M. H. Tatum, Jackson; Ollie May Wood, R. N., Starkville; Dr. S. E. Field, Centreville; Dr. Leo S. Brown, Water Valley; Miss A. L. MasGachen, R. N., Oxford; Miss Carrie Young, R. N., West Point; Dr. Philip Beekman, Natchez; Mrs. H. G. Bauer, Natchez.

All Inclusive Fees: Dr. G. M. Street, Vicksburg, Chairman; Mamie Davis, Canton; Claudia A. Estopinal, Meridian; Dr. Sam E. Eason, New Albany; Dr. J. W. Moody, Charleston; Mrs. J. E. Buckner, Starkville; Dr. C. H. Ramsey, Laurel; Dr. Ped L. Fite, Columbus; Dr. H. M. Smith, Natchez.

Constitution and Rules: Dr. J. S. Ullman, Natchez, Chairman; Mrs. Minnie Lou Roberson, Canton; J. B. Shannon, New Albany; Dr. N. C. Womack, Jackson; Dr. William W. McRae, Corinth; Dr. E. E. Benoist, Natchez.

WEBSTER COUNTY.

The physicians of Webster and surrounding counties took advantage of the dull times and attended the course of lectures given by Dr. McCord at Houston the second week in October. This is really a postgraduate course in obstetrics.

I would advise any physician and especially those doing rural practice to attend this course of lectures if an opportunity presents itself.

W. H. Curry, County Editor.

CHICKASAW COUNTY.

On Thursday, October 29, the Northeast Mississippi Thirteen Counties Society was the guest of the North Mississippi Medical Society at Oxford, University of Mississippi.

We had quite a delightful time, the papers that were read were splendid, the banquet was superb, the after dinner speeches delivered by Drs. Mull, Culley, and Underwood, and Dr. Hyman of the Medical Department of the University of Tennessee were splendid.

This meeting was the result of the meeting held at Houlika last June. I think if the other associations over the State would have more of these joint meetings it would result in much good to the associations and profession generally.

William C. Walker, County Editor.

WOMEN'S AUXILIARY.

The Women's Auxiliary of the Issaquena-Sharkey-Warren Counties Medical Society held its regular meeting on October 20 at the home of Mrs. H. S. Goodman, Cary. Mrs. H. H. Haralson, Vicksburg, reported for the Tuberculosis Association Committee. She stated that she and Mrs. M. H. Bell, Vicksburg, had inspected the annex at the Charity Hospital and found that it would house about 40 patients but that repairs would cost around \$2,000. She stated that the Tuberculosis Association, Red Cross, and Warren County Child Welfare fund had jointly built a hut on

the Charity Hospital grounds for an incurable patient sent back from the Sanatorium.

Mrs. A. Street and Mrs. H. H. Haralson, Vicksburg, Mrs. J. B. Benton, Valley Park, and Mrs. M. J. Few and Mrs. H. S. Goodman, Cary, were appointed to go before the Issaquena-Sharkey-Warren Counties Medical Society to ask aid in carrying out the project of repairing the annex for incurable tuberculosis patients.

Mrs. M. J. Few, Rolling Fork, gave a report on charitable work done in Sharkey County. Her production work of refilling the emergency shelf was successful.

Mrs. J. B. Benton, Valley Park, was appointed Hygeia Secretary, for Issaquena County.

Mrs. W. C. Pool, Cary, reported that the Methodists of Mississippi had asked aid in saving soap wrappers for the church until January 1, 1932. After that date, Mrs. Henry Boswell, Sanatorium, will appoint a chairman for this work and discuss ways and means of collecting wrappers for the endowment fund of the Sanatorium.

The constitution of the Auxiliary was accepted as corrected at the last meeting.

Mrs. W. C. Pool told of helping the ladies at Natchez to organize a Women's Auxiliary of the Homochitto Valley Medical Society and of the wonderful co-operation given her by the Natchez doctors.

Mrs. F. M. Smith, Vicksburg, reported on an interesting trip to Canada.

Drs. W. C. Pool and H. S. Goodman, Cary, presented the Women's Auxiliary with a lovely basket of flowers. This basket is to be handed down from president to president for future decoration. A vote of thanks was sent to Drs. Pool and Goodman.

CHANGE IN DATE.

The following letter has been sent to the members of the House of Delegates of the Mississippi State Medical Association.

"Due to a conflict in the meeting dates of the State Medical Association and the American Medical Association next May, it will be necessary for us to change the time of our meeting.

"Rather than put the members of the House of Delegates to the trouble and expense of meeting in Jackson to change the time of meeting as provided in Section 2 of Article V of the Constitution, I am enclosing a vote which I will ask that you return to me at once. It is very important for us to decide definitely on the time of

meeting at once in order that the chairmen of the various sections can arrange their programs as soon as possible and let the essayists know the exact time of meeting.

"The American Medical Association meets in New Orleans from May 9 through May 14. I do not think it would be wise to have our meeting the week preceding their meeting as this would necessitate those who wish to attend both meetings being away from their practice for two weeks at a time. I am going to suggest that we put the time of our meeting two weeks in advance of the meeting of the A. M. A., which will be April 26, 27 and 28.

"Enclosed you will find a self-addressed envelope and I suggest that as soon as you read this you sign the vote and mail to me immediately.

"Thanking you very much for your immediate attention to this matter, I am

"Yours very truly,

(Signed) John C. Culley, President."

MONROE COUNTY.

Touching the matter of "emerging from darkness into light," please permit me to say that my last communication was meant for the preceding month. But I was ignorant of the time limit. So I did not inflict you with an extra for last month.

It had been my purpose to write at some length on the recent meeting held at Oxford, since it was a joint meeting of the North Mississippi and the Northeast Mississippi societies. But I fear I shall not be able to do so, because of the confusion of thoughts that crossed my mind on that occasion. The meeting was held Thursday, October 29. The day was wonderful—so crisp and cool, so bright and beautiful. The roads were as good as could be desired, unless one should wish to anticipate the time when Mississippi shall join the sisterhood of states that have paved lines of travel. At 6:30 I was picked up at my office door by my splendid friend, Dr. C. E. Boyd, and his gracious wife. At nine o'clock we entered the city from the east over the Pototoc highway. We decided to spend the hour before the meeting driving over the city and over the driveways through the campus grounds. But "I saw not the things that were nor those that should have been"; for "a change came over the spirit of my dreams." First I saw myself, an unsophisticated youth of sixteen, as I was, on the occasion of my first visit there. On that day I had boarded a railway train for the first time in life. I left a home where I had been tenderly nurtured and protected from all outside

disturbances (but I had indulged in dreams that would be unlawful for me to tell). In order to reach Oxford from Aberdeen, my home, I spent over twelve hours and rode four different trains. I shudder, even now, to think of what might have befallen me on my arrival had I not been met by a friend, then in his junior year. This friend took me in tow and became my "big brother" to such an extent that no attempt to haze was ever made. On this last occasion I was sorely disappointed in that I did not see the austere and military General A. P. Stewart, who was then Chancellor. I failed to see Dr. Wheat, the erudite professor of Greek; Dr. Quinche, who taught us Latin; Dr. Jones, who taught chemistry; Dr. Robert Fulton, who soon became General Stewart's successor; and others whose names are only memories now. I looked into the faces of bright and complacent youths and maidens who are students now, but I failed to see the forms and faces of yesterday, now gone forever. I could but see in fancy Joseph W. Bailey, of tall and commanding figure—an orator, even then, of matchless type and Wm. C. Martin of retiring nature, but a young man whose scholarship has never been surpassed at "Ole Miss." I looked in vain for the big, brawny Tom James who was the most perfect physical specimen of his day. I thought fondly of my classmate, the knightly and chivalrous Ben Humphreys (and with some degree of shame, I thought of the pleasure it gave me to receive a higher mark in English than was given him on final examination). When I passed "Fitzhugh Hall" I thought of Dr. L. T. Fitzhugh and I smiled when I remembered the way he popped his lips when he would say "Applewhite, Magruder, Bryan and Baum may take this board." When I drove through the up-town square, I remembered the afternoon when the immortal L. Q. C. Lamar quelled a rising mob of University boys who had broken over and through all discipline. What a commanding figure, what a peerless mind, what a matchless orator. "When may we see his like again?" I remembered too, the night when I heard Joe Bailey and the brilliant W. B. Walker, who was my bosom friend until his untimely death, make their first political speeches in the little old fashioned court house which still stands in the square, seeming to guard and protect a dead buried past. The memories aroused that day haunt me still. When I stepped from the automobile in which I was riding I thought I was still the unsophisticated youth I once had been. But I was suddenly awakened from my dreams when a spare, stately, oldish, gentleman of distinguished mien extended his hand to me and with a courteous smile said, "How are you, old gentleman." How shocked I was (almost peeved) by this sudden, if not rude awakening. But when I saw it was none other

than my honored friend, Dr. P. W. Roland, who had thus addressed me, I tried to pull myself together and take my place among the living instead of the dead. I soon saw and met my genial friend, John Culley, who is now our esteemed president. Then came Dr. Mull, who is, I think, destined to do so much for the medical school at "Ole Miss." No one can realize what this institution means to the state, especially to our boys who expect to emulate themselves on the altar of medicine. Permit me to digress and say that during all the years that I was a member of the licensing board for Mississippi that the boys who took their primary work at Ole Miss, took leading rank among those applying for license to practice medicine in our state.

The meeting was a great success. The program was good-unusually good, with such men as Livermore and Bethea gracing it. But the scientific program, for once, was relegated to second place. It was called to be an "Ole Miss" day; an "Ole Miss" day it was.

No deaths—no marriages—no removals. Two new men have come into the bounds of our society—one into the county. Dr. B. C. Crisler has located in Aberdeen and Dr. Robert Christian has begun the practice of medicine at Baldwyn. Dr. J. A. Dilworth of Aberdeen is sick in the home of his niece, Mrs. W. J. Thompson. We hope for him an early recovery.

You are at liberty to consign this to your waste basket, but do not consign me to the realms of "darkness" again.

G. S. Bryan, County Editor.

MONTGOMERY COUNTY.

Montgomery County was represented at the recent meeting of the doctors and wives, with the medical students of the University at Oxford. The weather was ideal following a rain the day before, which settled the dust and helped to make the day very pleasant. Dr. and Mrs. S. S. Caruthers, Duck Hill, and Dr. J. O. Ringold, Winona, were the only ones present from Montgomery County.

Oscar E. Ringold, son of Dr. and Mrs. J. O. Ringold, who will finish his medical course at Baylor University this term and Miss Myrtle Castilla, a graduate nurse of Baylor University, were married in Dallas during last month.

The doctors of our county seem to be getting plenty to eat, but not much money.

J. O. Ringold, County Editor.

MORE TIME AND THOUGHT FOR ASSOCIATION BUSINESS.

J. Sidney Eason writes (N. O. M. & S. J., Oct., 1931, Vol. 84, p. 297); to complain of his insurance contract as sponsored by the State Association. E. F. Howard, in the November Journal (Vol. 84, p. 411) writes most pertinently on the same subject. In the Mississippi Doctor (Oct., 1931, Vol. 9, p. 7) Dr. Anderson, in replying to an article of mine on "Community Hospitals" says: "The resolution was adopted without discussion. It could have been discussed."

If my memory is dependable, and I think it is, the matter of group insurance for members of our Association was first brought up at the Meridian meeting in 1928. But it was taken up before the Scientific Section, just before the noon hour. We were running behind time with our program when it was interrupted to discuss this matter. Hence the members were not in a frame of mind for thoughtful discussion, even had they had sufficient data and information, on which to base intelligent discussion.

Last May, in Jackson, the resolution calling for the appointment of the committee to look into the matter of funds for the Community Hospitals, was presented to the House of Delegates on the last morning of the session, just a few minutes before the House was due to adjourn in order to permit the Scientific Section to begin its work. There was no time for discussion.

It has long been recognized that the House of Delegates did not have sufficient time at its disposal to give adequate consideration to matters of importance to the Association and its members. Accordingly, at the Jackson meeting, an amendment was adopted which provides that the meeting of the House of Delegates, on the first day of the session, may continue throughout the entire morning, in order that it may have adequate time for the proper consideration of its business.

But it will require respect for parliamentary procedure, a willingness to endure discussion and a will to "block the railroading" of business if the work of the House is to be productive of constructive legislation. Most people are impatient of what they call "long-winded" discussions, and many a man takes it as a personal matter if someone else can find a flaw in some resolution he has introduced. But it is better to "shoot it full of holes" before it is passed than to find it faulty afterward.

J. S. Ullman.

HOSPITALS.

It is said that the wife of Mayor Hylan, of New York, on one occasion, apropos of nothing much in particular, replied to Queen Marie, of Rumania, as follows: "Queen, you sho spoke a mouthful." This sterling sentiment may, quite as fittingly, be applied to the letter of Dr. H. A. Gamble (N. O. M. & S. Jour., Nov. '31, Vol. 84, p. 409). He says: "... it will be necessary to arouse the enthusiasm of all the hospitals of the State and to inculcate in them a keener desire for a higher standard of hospital work" That is correct Brother Gamble, but if we are to attain that standard it will also be necessary to awaken an enthusiasm in the rank and file of the medical profession of the State and to overcome their indifference to hospital standards.

Few physicians seem to realize that hospital administration is as much a specialty, today, as is oto-laryngology, urology or radiology. The possession of surgical skill and judgment plus an inordinate desire for a place in which to do surgery is not sufficient to establish the right of an individual to maintain a hospital. If such a man is to devote the necessary time to efficient management then he will not have sufficient time to devote to his patients.

There is no reason why one or more physicians in a community should carry the burden of keeping up a hospital. In Natchez ten physicians have approximately a quarter of a million dollars tied up in two hospitals and their equipment. Why should this small group be expected to carry such a burden, even though aided by State funds? In the final analysis, too, the interest of the patient may be better cared for if the physician is not directly concerned in the financial success of the institution. In other words, let us make our hospitals community institutions in fact as well as in name.

At present we have the Mississippi Hospital Association and the Committee on Hospitals of the Mississippi State Medical Association working on our problems. The Mississippi group of the American College of Surgeons, too, is interested in hospital standardization. There should be co-operation on the part of all these groups. In fact each group is made up from the medical profession of the state. Let us get together in working out our problems. Each body is composed of good men and true, but there should be no need for a duplication of effort.

Yes, Brother Anderson, Dr. Bullitt is correct in stating that ninety-five per cent of the patients can be cared for at home. One of the Mayos is credited with having said that when patients come to them with the diagnosis unmade it is invariably

due to the fact that the examining physician failed to carry his investigations far enough and not because he did not know how to examine the patient. Quite often in response to the patient's plea for economy routine laboratory work is not insisted on by the home doctor. Our doctors are capable but they should protect themselves by insisting that they be given the right to gather sufficient data on which to base a diagnosis. Furthermore, they should educate the public—especially their local community—to realize that the burden of hospital maintenance and of caring for the indigent sick is not to be borne on the shoulders of doctors of the county. When you assume this burden and merely ask the State to help with a dole, you can not blame the public. Let us ask the lawyers to pay for the erection and maintenance of our court houses. That would reduce taxes.

J. S. Ullman.

GRENADA COUNTY.

Medical affairs in Grenada County are maintaining status quo.

So little sickness that the doctors so included are enjoying frequent outings, hunting and fishing.

Five of our doctors attended the meeting of our local society on October 6, a very enjoyable day was spent.

A fine meeting was had at Oxford on the 29th. Some two hundred North Mississippi doctors were present. A splendid program, an excellent luncheon and an exceptionally fine spirit made it a worthwhile occasion.

The many friends of Dr. Frank S. Hill will be glad to know that he has fully recovered from a recent appendectomy.

J. T. Brown, County Editor.

THE SOUTHEASTERN SURGICAL CONGRESS.

This association of surgeons of the seven Southern States is rapidly growing, and making excellent progress toward attaining its objectives.

A survey of medical and surgical organizations in this country showed the following: The New England States have a surgical organization; the Western States have a surgical organization; the Pacific Coast States have a surgical organization; in fact, practically all clearly identified sections of the country have regional surgical associations. With the advent of the Southeastern Surgical Congress this group of states is also provided for. The seven states at present included are. Alabama, Florida, Georgia, Mississippi, North Carolina, South Carolina, and Tennessee.

Membership is limited to surgeons of recognized ability and consists of Senior Fellows, Junior Fellows, and Honorary Fellows. The sponsors of this Congress are conducting it on a high plane. It is self supporting, it sees no need for haste in selecting its members, and it will not tolerate commercialism.

Officers of the Congress are: Dr. C. W. Roberts, Atlanta, President; Dr. A. J. Mooney, Statesboro, Ga., Vice-President; Dr. B. T. Beasley, Atlanta, Secretary and Treasurer; Dr. Frank K. Boland, Atlanta, President-Elect.

At the 1931 meeting which was held in Atlanta an excellent program was presented. The next meeting will be held in Birmingham, Alabama, on March 7 and 8, and the program will be composed of presentations by men equally as distinguished as those of the last meeting.

VICKSBURG SANITARIUM.

The regular monthly meeting of the staff of the Vicksburg Sanitarium was held on Monday, November 9, at 6:30 p. m. After the regular business of the staff and reports from the records department and analysis of the work of the hospital, the following special case reports were made:

Post Operative Tetany.—Dr. J. A. K. Birchett, Jr.

Discussed by Dr. G. M. Street.

Septic Meningitis complicating Suppurative Otitis Media and Mastoiditis.—Dr. G. C. Jarratt.

Discussed by Drs. J. A. K. Birchett, Jr., S. W. Johnston, and E. H. Jones.

The following special reports were made:

Spontaneous Pneumothorax and Massive Collapse of the Lung.—Dr. Walter E. Johnston.

Discussed by Drs. G. C. Jarratt, L. J. Clark, J. A. K. Birchett, Jr., and S. W. Johnston.

The Recent International Assembly of the Interstate Postgraduate Association at Milwaukee.—Dr. J. A. K. Birchett, Jr.

The Recent Meeting of the American College of Surgeons at New York.—Dr. E. H. Jones.

Selected radiographic studies were demonstrated as follows: Outward dislocation of elbow; Osteomyelitis of tibia; Sarcoma of lung, metastatic from tibia; Carcinoma of the stomach.

The next meeting of the staff will be held on Thursday, December 10, at 6:30 p. m.

CLAIBORNE COUNTY.

It is with genuine grief that we report the death of Dr. R. A. Segrest, Port Gibson, who died in a hospital in Jackson, October 31, following an illness of a year and a half.

Dr. Segrest recovered sufficiently, early in the summer to resume practice and we hoped that he was well but in September he had to give up his work and soon after that went to Jackson, remaining there till his death.

Mrs. Chapman, wife of Dr. A. L. Chapman, Hermanville, has been very ill for some time.

A mild epidemic of diphtheria has occurred in the county. With the help and co-operation of the State Board of Health, the part time health officer plans to administer toxin-antitoxin to the school children.

W. N. Jenkins, County Editor.

PONTOTOC COUNTY.

So far as the doctors of Pontotoc county are concerned, "All is quiet along the Potomac." Dr. Donaldson, our capable health officer, is still carrying on in such a manner that most of our diphtheria and scarlet fever has disappeared. We have had a wave from one end of the county to the other.

Dr. D. T. Dempsey, out at Toccopola, seems to be going right along in his usual way. He and his family are enjoying health and quiet these Indian summer days.

There is nothing sensational about Dr. W. H. Reid, also of Toccopola, yet he continues to function in his usual way.

Dr. Z. T. Dorsey of Troy remains quiet and uncomplaining as long as they carry anything like fair with him.

Dr. J. H. Windham of Ecu, in the northern part of the county, is still active and doing his usual type of good work. So far he has collected seventy gallons of good sorghum molasses.

The most important events with the writer and his senior partner Dr. J. D. Neel of Ecu, are the eternal swabbing of ulcerative tonsillitis and an enormous big baby most every other day or night.

When it comes to physical make up, Dr. Abernathy of Algoma is the "Big Boy" of our county. He weighs more than two hundred pounds and covers all the ground he stands on.

The big event in the annals of our medical Society was the meeting at "Ole Miss" with the North Mississippi Medical Society on October

29. The program was of excellent quality. The speakers and essayists were well worth the hearing. The day was ideal, and nothing but good fellowship filled the air. But to most of us the coming back home to our Alma Mater sensed of greater things. The question as to whether we shall continue to maintain a medical department at our State University was uppermost in the minds of all present. If we are going to have a medical department, what type or breed shall we maintain? Are we willing to have a second or third class school in the hands of designing politicians who will continue to kick it around like some worthless hound's pup, or shall we clear out and continue to have the best two-year course of medicine in the whole country? The answer was unanimous in favor of a Class A medical school. This type of school in our midst has many advantages. It can furnish medical education to our medical students at less cost than would be required in larger cities. It would inspire in the minds of such students a reverence for their state. It would make them alumni of their own State University, a thing of no small importance. The immediate thing for us to accomplish is to get our state colleges back on the accredited list and keep them there. The subject of a full four-year medical school at Oxford may come up for discussion later; at the present we must take care of what we have.

By the time this reaches our readers Christmas will be drawing near. We hope for the profession and all, the greatest Christmas possible and that the new year will smooth out many of the rough places and that we may go on to greater things as rapidly as the opportunities are presented.

Eliam B. Burns, County Editor.

MATTY HERSEE HOSPITAL, MERIDIAN.

Miss Agnes McGovern, R. N., of Philadelphia, Miss., graduate of St. Joseph's Hospital, Memphis, Tenn. is operating room supervisor.

Miss Marie Irby, Meridian, a graduate of the class of 1930, M. S. C. W., Columbus, is laboratory technician.

Dr. R. L. Donald of Quitman, is a member of the staff and resides at Matty Hersee Hospital. Dr. Donald is a graduate of Jefferson Medical College of Philadelphia, Pa., and served an internship at Touro Infirmary, New Orleans, La.

Dr. A. C. Bryan of Meridian, is also a member of the staff and does the orthopedic surgery.

A. J. Ware, Superintendent.

WARREN COUNTY.

Dr. T. F. Howard attended the recent meeting of the Committee on Constitution and By-Laws of the Mississippi State Medical Association at Natchez.

Dr. W. E. Akin recently underwent an operation for the removal of an acute appendix. He is convalescing nicely.

Quite a number of our members are planning to attend the Southern Medical Association meeting in New Orleans, but, at this date, no complete list is available.

Dr. A. Street delivered an address on "Peptic Ulcer," at the joint meeting of the North Mississippi Medical Society and the North East Mississippi Thirteen-County Medical Society at University on October 29th.

Dr. Leon S. Lippincott was general chairman and Dr. Edley H. Jones chairman of the committee on exercises in the schools in connection with the Armistice Day celebration in Vicksburg and Warren County.

Edley H. Jones, County Editor.

ADAMS COUNTY.

Dr. Edwin Benoist who recently spent two weeks in New York, where he attended the Congress of the American College of Surgeons. He was accompanied on the trip by his father, L. A. Benoist. Miss Carolyn Benoist went from John Hopkins in Baltimore to New York to spend the week-end with her father and brother.

Dr. John Schrieber recently motored to Jackson for a conference with the State Board of Health. He was accompanied by Mrs. Schrieber, their son, John, and Mrs. Curtiss Hill.

Mrs. J. W. Dicks has returned from an interesting visit of a few weeks to her son-in-law and daughter, Mr. and Mrs. Lyman Darling in Old Hickory, Tennessee, and to her brother, Dr. Frank Henderson and Mrs. Henderson, in Louisville, Kentucky. Dr. Dicks was with Mrs. Dicks in Old Hickory.

L. Wallin, County Editor.

THANK YOU!

"Let me give honor, to him to whom honor is due.

"Let me congratulate you on the fine programme you have in this month's issue of the journal.

"You are doing fine and wonderful work, and bringing Mississippi to the front.

"God bless your efforts. May you continue. Again, congratulations.

"Sincerely your friend,

"(Signed) Lucien S. Gaudet, M. D."

PIKE COUNTY MEDICAL SOCIETY.

The Pike County Medical Society met at the McColgan Hotel, McComb, Thursday, November 5, at 7 p. m.

Members present: Thomas Purser, W. F. Cotton, W. O. Biggs, Elise Rutledge, L. J. Rutledge, G. W. Robertson, W. C. Hart, T. Paul Haney, B. J. Hewitt, J. E. Brumfield, R. H. Brumfield.

Program: The Menace of Psychiatry, Part 2.—Elise Rutledge.

A Report on Pernocion Hypnosis.—R. H. Brumfield.

R. H. Brumfield, Secretary.

SOUTH MISSISSIPPI MEDICAL SOCIETY.

The South Mississippi Medical Society will meet in Hattiesburg on December 10 at 3 p. m., for the regular quarterly meeting, at which time officers will be elected for the ensuing year.

By invitation to the South Mississippi Medical Society from the Stone-Harrison-Hancock Medical Society, quite a number of our members attended a joint meeting with the Auxiliary at the Veterans' Hospital at Gulfport, November 4, and enjoyed a very instructive and pleasant program by the staff of the Veterans' Hospital.

Dr. J. E. Green of Richton is at Tulane University, Medical Department, doing post graduate work for four months, having received a scholarship from the Commonwealth Fund of New York, together with a class of fifteen from other sections of the state.

It is not good policy to talk of hard times and depression, but this is the weakest BOOM I have ever seen.

Dr. W. S. Harper, president of the South Mississippi Medical Society has appointed Dr. L. B. Hudson, Dr. Fern Champenois and Dr. H. L. McKinnon, to arrange the program for the December meeting at Hattiesburg.

At the August meeting of the Society, it was suggested that the South Mississippi Medical Society meet at the K. C. Hall Lakes near Heidelberg each summer for a week's outing and a course of lectures by outstanding teachers. A seminar of this nature would fill a great need in this section and it will be discussed again at the next regular meeting in December, at which time the president will appoint a committee to investigate the advisability of such a course.

No deaths, no births, no marriages nor divorces among our doctor population; everything seems to be quiet.

J. H. Newcomb, Secretary.

MISSISSIPPI STATE BOARD OF HEALTH.

Miss Theresa Kraker, Associate Director of the Public Health Division of the Commonwealth Fund, spent several days in Mississippi observing the public health programs in Pike and Lauderdale Counties. These Counties are the two in Mississippi which are receiving aid from the Commonwealth Fund of New York. Miss Kraker also spent several days in the central offices of the State Board of Health.

Mississippi physicians may secure periodic health examination blanks from the State Board of Health free of charge.

Under the plan of co-operation of the Commonwealth Fund with the Mississippi State Board of Health, the following physicians were awarded four months' postgraduate courses and are now studying at Tulane University:

Dr. W. A. Carpenter, Cleveland; Dr. S. E. Eason, New Albany; Dr. B. C. Tubb, Smithville; Dr. J. B. Ainsworth, Florence; Dr. Joe Green, Laurel; Dr. W. M. Biggs, Osyka; Dr. W. S. Lamp-ton, Magnolia; Dr. E. M. Givens, Summit; Dr. L. W. Brock, McComb; Dr. T. E. Hewitt, Summit; Dr. T. L. Bennett, Meridian; Dr. C. J. Lewis, Meridian; Dr. E. B. Key, Meridian; Dr. R. M. Leigh, Meridian; Dr. R. J. Wilson, Bailey.

Under this same plan, the following boys were awarded four-year undergraduate scholarships at Tulane:

James G. Blaine, Clinton; Paul Rogers Gooze, Booneville; Edwin M. Meek, West Point; Onie P. Myers, Collinsville; Russell L. Welch, Norfield; Aubrey V. Beachma, Hattiesburg.

These young men will receive \$100 a month during the four years of their medical education.

WARREN COUNTY HEALTH DEPARTMENT.

Acknowledgment is made of the receipt of the second biennial report of the Warren County Health Department, covering the period July 1, 1929 to June 30, 1931, Dr. F. Michael Smith, Director. The report, which is in the form of a booklet of twenty-three pages and a statistical blue print showing immunization figures among the school children in a county-wide survey, is well arranged and contains much interesting material. Of special interest is a description of Warren County and its people, numerous cuts and charts and a brief summary statistical report which shows the excellent work being done for the health of the people along the lines of preventive medicine. The activities of the department included: Educational lectures and talks to classes, 1,194; letters, circular letters sent, etc.,

23,365; conferences—individual and group, 7,243; sanitary inspections, private and public premises, 4,891; official dairy inspections, 773; inspections of food products and dispensing places, 1,897; inspections of barber shops during last six months, 189; visits to cases, carriers, contacts and suspects, 418; schick test given, 1,911; tuberculin test for cows, 2,063; toxin-antitoxin and toxoid, doses given, 2,843; typhoid inoculations, doses given, 13,139, anti-smallpox vaccinations, 1,675; home visits, prenatal, preschool and school, 3,329; total midwife class attendance, 1,709; laboratory examination of blood specimens, 298; laboratory examination of water samples, 435; laboratory examination of throat smears, 415; laboratory examination of milk samples, 927; total changes excreta disposal, 1,048; cases in court, violating sanitary law, 15.

ANOTHER COUNTY EDITOR.

In reply to the enclosed letter from Dr. George Baskerville, President of the Delta Medical Society, will state that I will be glad to report from Bolivar County if the doctors will co-operate with me by sending all news of interest.

The influenza cases this season are proving to be more like the 1918 type than any seen by me since that time. The slightest exertion or exposure causes either pneumonia or heart complication. It is to be hoped that our state meeting can be arranged so it will not conflict with the A. M. A. meeting next May.

Again stating that my report each month depends upon the doctors of Bolivar County.

Charles W. Patterson, County Editor.

ADDITIONS.

The following names have been added to the list of the Association's members who served as officers of the United States Army during the World War:

Carroll, G. F., Biloxi.

Wesson, E. H., New Albany.

JOINT MEETING.

Some 200 doctors from the northern part of the State attended the joint meeting of the North Mississippi Medical Society and the Northeast Mississippi Thirteenth County Medical Society at University on Thursday, October 29, beginning at 10:30 a. m. Dr. W. H. Anderson, Booneville, served as Chairman of the meeting. The program included:

Address of Welcome.—Chancellor J. N. Powers, University.

Response.—Dr. J. M. Acker, Aberdeen, President-Elect, Mississippi State Medical Association.

The Significance of Pus and Blood in the Urine.—Dr. George R. Livermore, Memphis, Tennessee.

Some Recent Advances in the Diagnosis of Diseases of the Chest.—Dr. Oscar W. Bethea, New Orleans, Louisiana.

Luncheon at cafeteria.

Round Table Talks by:

Dr. O. W. Hyman, Dean of University of Tennessee Medical School.

Dr. P. L. Mull, Dean of University of Mississippi Medical School.

Dr. F. J. Underwood, President, Southern Medical Association.

Dr. J. C. Culley, President, Mississippi State Medical Association.

Peptic Ulcer.—Dr. A. Street, Vicksburg.

Address.—Dr. I. S. Rychner, Memphis, Tennessee.

Regarding the "Ole Miss" Medical School, Dean Hyman stated that the University of Mississippi's two-year medical school is of the most vital importance to the State, that the school turned out excellent two-year men who, after completing their course and internships elsewhere, were much needed in Mississippi, and that the actual presence of the school encouraged other young men to become interested in the study of medicine.

Wives of many of the doctors who had been invited by the two societies, had luncheon with the group at the cafeteria, heard an address at the Y. M. C. A. building by Mrs. A. Street of Vicksburg, who discussed the work of the Women's auxiliary, and in the afternoon enjoyed an informal tea given for them by Mrs. J. C. Culley.

Dr. T. M. Dye, Clarksdale, Secretary of the Mississippi State Medical Association, and Dr. E. LeRoy Wilkins, Clarksdale, Treasurer of the Mississippi State Medical Association were among those in attendance.

MISSISSIPPI STATE NURSES' ASSOCIATION.

The Twentieth Annual Meeting of the Mississippi State Nurses' Association was held at Greenville, October 28, and 29, 1931. The address of

welcome was given by Mayor Fred Schelben and the response by Kate Lou Lord, Hattiesburg. Bertie Jones, Sanatorium, reported for the National League of Nursing Education. Mabel Richardson, Centreville, was the presiding officer for the section on hospitals and training schools and the speakers before this section were Madge Timlin, Vicksburg; Olivia C. Rainer, Natchez; Kate Lou Lord, Hattiesburg, and Ella Best, Field Secretary, American Nurses' Association.

Mary D. Osborn, Jackson, presided over the Public Health Section, the program of which included as speakers Dr. H. C. Ricks, Jackson; Johanna J. Schwarte, Indianola; Augustine Stoll, Jackson, and Syd Vaughan, Brookhaven.

The Private Duty Section, presided over by Louise Wall, Greenville, heard Rose A. Keating, Jackson and Mattie Rife, Natchez.

Syd Vaughan, Brookhaven, delivered the President's address.

HISTORY.

The following abstracts from the history of the Mississippi State Medical Association are being printed in order that the members of the Association may make any suggestions or corrections desirable before final publication. Please read carefully and then communicate with Dr. E. F. Howard, Historian, if you feel any changes should be made.

1916:

By far the most important and most interesting matter before the Association at its 1916 meeting, is described in the report of the committee on Public Policy and Legislation. By direction of the House, this committee had sponsored bills for the prevention of ophthalmia neonatorum and to establish and maintain a sanatorium for the care of incipient tuberculosis. The former passed the Legislature "almost unanimously," the latter with only eleven dissenting votes. Here we find one of the few instances of the Association conferring a special honor on one of its members. A loving cup was presented Dr. Carroll Hendrick of Alcorn County in recognition of his long and faithful service to the profession and the people of the State: Twenty-six years in the State Sen-

ate, during which time his constant and able championship of public health affairs and his loyal activities in behalf of his profession have made for him an enviable record.

1917:

As was the case with most meetings held during 1917, the annual session, which was held in Jackson, resolved itself to a considerable degree into a war meeting. There were only twenty Mississippians in the Medical Reserve Corps and the State quota was one hundred and seventy-five. An examination bureau was established in a place convenient to the meeting hall and the meeting itself, the afternoon of the second day, turned into a recruiting station. The results were quite satisfactory as was shown by the list published the following year. This was incomplete and contained only the names of members of the Association, but the Transactions of 1919 contains the statement that "three hundred and sixty-four Mississippi doctors wore the uniform."

1918:

The 1918 session showed the reflection of the war very considerably. Paid membership to May 1, had dropped to seven hundred and ninety-six, partly due to the heavy loss by enlistment, part to the fact that many of the County Secretaries had joined the colors. An amendment to the By-Laws was passed remitting the dues of all members in service in the Army and Navy. The Transactions of this year does not carry a record of the registration at the meeting, but the fact that it contains only a dozen scientific papers, and three of these by non-residents, shows rather conclusively that the Mississippi profession gave of its best to the service.

ISSAQUENA-SHARKEY-WARREN COUNTIES MEDICAL SOCIETY.

The regular monthly meeting of the Issaquena-Sharkey-Warren Counties Medical Society was held at the Y. M. C. A., Vicksburg, on Tuesday, November 10, at 7 p. m. The papers and discussions included:

Diagnosis and Treatment of Specific (Gonorrheal) Urethritis, Anterior and Posterior.—Dr. D. A. Pettit.

Discussed by Drs. J. A. K. Birchett, Jr., and A. Street.

Neurosyphilis.—Dr. R. H. Foster.

Discussed by Drs. G. M. Street, W. G. Weston, and S. W. Johnston

Edema.—Dr. Walter E. Johnston.

This paper was illustrated by slides and animated diagrams prepared by Dr. Johnston.

Discussed by Drs. G. C. Jarratt, L. S. Lippincott, S. W. Johnston, F. M. Smith, and E. F. Howard.

Mesenteric Lymphadenitis Simulating Appendicitis in Children.—Dr. G. C. Jarratt.

Discussed by Drs. George M. Street, W. H. Parsons, and H. S. Goodman.

Mrs. H. H. Haralson, Mrs. E. F. Howard, Mrs. M. H. Bell, and Mrs. J. B. Benton, as a committee from the Women's Auxiliary, appeared before the Society to ask aid in securing a place for incurable tubercular patients in Warren County. A committee of the Society composed of Drs. G. C. Jarratt, A. J. Podesta, and E. H. Jones were appointed to co-operate with the Women's Auxiliary in this matter.

Final plans were made for the joint meeting of this Society with the Fifth District Medical Society at Vicksburg on December 8. The reception committee, which will be the same as for last year, is made up of Drs. E. H. Jones, F. M. Smith, W. H. Parsons, and G. M. Street.

The December meeting is also the annual meeting of this Society and officers will be elected for the year 1932.

SPECIAL INVITATION TO YOU.

All members of the Louisiana State Medical Society and the Mississippi State Medical Association are most cordially invited and urged to attend the semi-annual joint meeting of the Fifth District Medical Society of Louisiana and the Issaquena-Sharkey-Warren Counties Medical Society, at Vicksburg, Mississippi, on Tuesday, December 8, at 6 p. m. You are also urged to come early and to let us know that you are coming so

that our reception and entertainment committee may show you the honors.

The Scientific Program which will be presented following a dinner at the Y. M. C. A., is outstanding this year with the following speakers:

Dr. Chaillé Jamison, Professor of Clinical Medicine, Tulane University School of Medicine, New Orleans—"A Discussion of Certain Phases of Chronic Congestive Heart Failure."

Dr. Henry M. Meyerding, Associate Professor of Orthopedic Surgery, University of Minnesota Graduate School of Medicine, Mayo Clinic, Rochester, Minn.—"The Treatment of Arthritis with Special Reference to Prevention in Correction of Deformity."

Dr. W. H. Olmstead, Associate Professor of Clinical Medicine, Washington University School of Medicine, St. Louis—"Secondary Anaemia; Present Status of Dietary and Inorganic Therapy."

Please make your plans now to attend.

Leon S. Lippincott, Secretary.

DRS. GAMBLE BROTHERS AND MONTGOMERY.

Drs. Gamble Brothers and Montgomery have announced to the medical profession that they now have associated with them Dr. J. A. Beals in charge of the department of roentgen-ray and radium. Dr. Beals comes to Greenville from the St. Thomas Hospital, Akron, Ohio, and has had besides experience in several of the larger hospitals of the country. He has been more recently associated with the National Pathological Laboratories of Chicago.

Mrs. A. Street, Vicksburg, addressed a meeting of the Woman's Auxiliary of the Homochitto Valley Medical Society at Natchez on November 10.

DEATHS OF MISSISSIPPI DOCTORS.

Robert A. Segrest, member of the Claiborne County Medical Society. Graduate of Memphis Hospital Medical College, 1903. Resident of Port Gibson for several years. Died at Jackson, October 31, 1931.

PONTOTOC COUNTY.

The meeting of the North Mississippi Medical Society was held jointly with the North East Mississippi Thirteen County Medical Society at University, Mississippi, on Thursday, October 29. The program consisted of many good papers and addresses. Those enjoying them from Pontotoc county were the following: Drs. E. G. Abernathy, E. B. Burns, W. R. Card, Z. A. Dorsey, A. P. Dunavant and R. P. Donaldson.

The epidemic of diphtheria in this county has about subsided. We have had 50 cases reported to date with two deaths. Those cases were not seen by physicians for several days after taken and were of the laryngeal type. Toxin-antitoxin has been given to 150 children.

R. P. Donaldson, County Editor.

"215 Reservoir Road

"Brookline, Mass.

"October 18, 1931.

"I am away from Clarksdale on a year's leave of absence, and, this is to inform you that Dr. E. LeRoy Wilkins is Secretary of the Clarksdale and Six Counties Medical Society.

"(Signed) D. V. Galloway."

CLARKSDALE AND SIX COUNTIES MEDICAL SOCIETY.

The Fifty-ninth Semi-Annual Session of the Clarksdale and Six Counties Medical Society was held at the Alcazar Hotel dining room, Clarksdale, Wednesday, November 4, at 7 p. m.

The program included:

1. Dinner.
2. Business Session and election of officers for 1932.
3. President's Address.—Dr. W. S. Slaughter, Jonestown.
4. Malignancy of the Cervix; Radium Therapy.—Dr. A. B. Carney, Clarksdale.
5. Community Hospitals—A Talk.—Dr. John C. Culley, Oxford, President, Mississippi State Medical Association.

6. Greetings.—Dr. J. M. Acker, Jr., Aberdeen, President-Elect, Mississippi State Medical Association.

7. An Address.—Dr. F. J. Underwood, Jackson, President, Southern Medical Association.

8. A Talk with Motion Pictures, Taken on My Trip to Africa.—Dr. Casa Collier, Memphis.

COMMUNITY HOSPITALS.

In regard to legislation sponsoring Community Hospitals, I believe that we can render a better service, reach more people and spend less of the tax payer's money by maintaining charity wards in the small hospitals scattered over the State, private or otherwise, than we can by maintaining large Charity Hospitals.

E. S. Bramlett, Oxford.

ISSAQUENA COUNTY.

Dr. T. A. Heath, Shiloh, a past president of the Issaquena County Medical Society, and an honorary member of the Issaquena-Sharkey-Warren Counties Medical Society and of the Mississippi State Medical Association, has practiced medicine in the Delta for fifty years. While his physical condition is not good, he is not confined to his bed and is frequently found at his desk prescribing for suffering humanity. Dr. Heath would be glad to hear from his many friends.

HONOR ROLL FOR DECEMBER.

Your Mississippi Section of Our Journal this month is due to the efforts and co-operation of the following:

T. A. Heath, Charles E. Baldree, Jr., J. A. K. Birchett, Jr., G. C. Jarratt, Charles T. Burt, James T. Brown, J. C. Culley, W. H. Curry, E. F. Howard, A. H. Little, F. J. Underwood, H. A. Gamble, William C. Walker, Mrs. H. H. Haralson, G. S. Bryan, J. O. Ringold, J. S. Ullman, A. Street, W. N. Jenkins, Eliam B. Burns, A. J. Ware, Edley H. Jones, L. Wallin, Lucien S. Gaudet, R. H. Brumfield, J. H. Newcomb, F. M. Smith, C. W. Patterson, George W. Acker, R. P. Donaldson, D. V. Galloway, E. Leroy Wilkins, E. S. Bramlett.—33.

YOUR EDITOR THANKS YOU.

BOOK REVIEWS

The Causation of Chronic Gastro-Duodenal Ulcers: A new theory, by J. Jacques Spira, M. R. C. S. (Eng.), C. R. C. P. (Lond.), London Oxford University Press. 1931. pp. 71.

This seventy-one page monograph is the work of a British internist and possesses an introduction by Sir Humphrey Rolleston. The argument stated is as follows: Fat, when introduced into the stomach regularly, causes regurgitation of the duodenal contents, including bile, into the stomach; and bile salts, when mixed with the acid gastric contents, damage the mucous membrane of the stomach. This thought is very different from the present one that Americans favor as the prime etiological factor. Much evidence is offered in substantiation. The author claims his theory is entitled to consideration, and I agree with him. However, it is the critic's opinion that the theory will remain only a theory. In conclusion, the monograph is very worth while, as much physiology and pathology is included and is presented in the usual efficient manner of the British.

SIDNEY M. COPLAND, M. D.

Text Book of Pathology: Ed by E. T. Bell, M. D. Philadelphia, Lea & Febiger. 1930. pp. 627.

The author's attempt to present to the student the essential facts of pathology has succeeded perfectly. Tersely and concisely phrased, the book of Bell's, in 628 pages, contains the same material which we often find in far more voluminous text books. All fields of general and special pathology are briefly but completely treated in twenty-eight chapters. Superfluous repetitions are avoided, and each chapter contains a few references to the newer literature. In this manner the author has given the student the opportunity to orient himself with reference to the important recent literature of pathology. The classification and nomenclature of the pathological processes follows the more recent ideas on the subject. Unfortunately, some chapters, such as that on the Tumors of the Nervous System, are treated too briefly. The author's arrangement of the sequence of the chapters is quite unusual and the reason therefore is not very clear. The technical presentation of the book is excellent, the typography very clear, and the illustrative material, which is taken exclusively from the author's own experience, presents many splendid

drawings and microphotographs. All in all, this is a short but satisfactory book of orientation of the most important chapters of pathology and can be highly recommended to the student.

E. VON HAAM, M. D.

The Practice of Medicine: By A. A. Stevens, A. M., M. D. Philadelphia, W. B. Saunders. 1931. pp. 1150.

This is one of the last of the single author text books on medicine that continue to survive and be revised from time to time. Not up to the calibre of Macrae's Osler's Medicine it is nevertheless a most creditable work. It meets all the requirements of a good standard text book. No therapeutic nihilist, Dr. Stevens spends ample time in the consideration of treatment. This should serve to popularize the book with students.

In the chapter dealing with hyperthyroidism the author states that gastric achylia is observed in many cases. Such a statement is not in accord with the popular conception. Hyperacidity of the stomach contents is regarded usually as a part of the general picture.

MAURICE SULLIVAN, M. D.

Yellow Fever: An Epidemiological and Historical Study of Its Place of Origin: By Henry Rose Carter, M. D., ed. by Laura Armistead Carter & Wade Hampton Frost. Baltimore, The Williams & Wilkins Co. 1931. pp. 308.

This posthumous work of Dr. Carter was essentially completed before his death in 1925, at which time the West African studies on yellow fever had not been undertaken. Yet no significant aspect of the author's conception of the epidemiology of the disease needs modification in the light of the important African investigations.

After a general consideration of the essential factors involved in the propagation of yellow fever (susceptible human beings, the mosquito vector and the virus), the potential geographical distribution and differential diagnosis of the disease, the main theme is undertaken, namely, the place of origin of yellow fever. In scholarly, masterful fashion, by examination of all the important local records, including those of Mayan origin, and by forceful deduction, the argument is developed to

show that there was no disease in the New World which could possibly have been regarded as yellow fever before 1648, when the disease developed in epidemic fashion in Cuba. Although historical evidence regarding the disease in Africa antedating 1778 is lacking, yet indirect inference in records from the West African Coast settlements in 1585, 1599 and 1638 is indicative of its presence there. Furthermore, the biological evidence, particularly the mild type of the infection contracted by the negro along this coast, favors Dr. Carter's thesis. The accuracy of the author's deductions is indicated by the epidemiological and experimental studies of the West African Yellow Fever Commission.

ERNEST CARROLL FAUST, Ph. D.

A Text Book of General Bacteriology: By Edwin O. Jordan, Ph. D. Philadelphia, W. B. Saunders Company. 10th ed. 1931. pp. 819.

This new edition has been amplified by 31 pages. As the author states in the preface, considerable material has been added in an attempt to keep abreast of current knowledge. The arrangement of the chapters in the previous edition has been retained in the new book. Of interest is the utilization of the newer nomenclature for certain organisms. We thus find the designations of *Salmonella*, *Brucella*, *Eberthella*, *Parteunella*, etc., to which the older terminology is added parenthetically. The problem of the bacteriophage is dealt with in detail, and the chapter on yellow fever has been elaborated and brought up to date. The intrinsic value of the book is well known and does not necessitate the review of the content and execution of the volume. Suffice it to say, that the new edition of Jordan's bacteriology covers completely and ably the niveau of modern concepts of the science of bacteriology, and thus it offers to the physician and the student an excellent representation of this field of medical knowledge.

E. VON HAAM, M. D.

Surgical Pathology of Prostatic Obstructions: By Alexander Randall, M. A., M. D. Baltimore, Williams & Wikins Company. 1931. pp. 267.

This treatise is a compilation of the surgical pathology of prostatic obstructions collected by

the author from 1218 autopsy specimens of the male bladder. There are chapters on benign prostatic hypertrophy, median bar, carcinoma of the prostate and abscess of the prostate. There is a short chapter on materials and one on miscellaneous studies, the latter of which includes prostatic calculi, tuberculosis, etc. Twenty-two charts and nineteen tables together with seventy-eight plates (photographs under water) of the gross material help explain the lesions. Accompanying each plate is a short history and an explanatory paragraph. There are no superfluous words or phrases in the discussion of the subject matter and its discussion is presented in a simple interesting fashion. This book is an excellently illustrated and well explained resume of Dr. Randall's experience with the condition presented in a very inviting fashion and should be of great value to those interested in the subject.

J. W. WILLIAMS, M. D.

Synopsis of U. S. Pharmacopoeia and National Formulary Preparations: By H. J. Fuller, Ph. C., Phm. B. Philadelphia, P. Blakiston's Son & Co., Inc. 1931. pp. 247.

This little volume is a synopsis of the United States pharmacopoeia and national formulary preparations, giving the Latin and English titles, synonyms, composition, method of preparation, strength and doses, arranged as to class of preparation.

In his preface the author tells us that he wrote such a treatise to satisfy a long felt use. Its usefulness is not apparent to this reviewer, however, and it is such a small book that it would not help swell the bulk of one's library.

MAURICE SULLIVAN, M. D.

Paralysie Generale et Malariatherapie: By R. Leroy et G. Medakovitch. With preface by Prof. Wagner-Jauregg. Paris, G. Doin & Co. 1931. pp. 500.

This volume is in French. The authors, physician-in-chief and chief of laboratories at L'Asile Clinique (Sainte-Anne), and contributors of valuable articles on the same subject since 1928 are thoroughly qualified to present a complete study of this method from all points of view.

In the first chapters the authors present a review of the remissions in general paralysis as observed in the past and at the present time. Stress is laid on the marked differences between the so-called spontaneous remissions and those following malaria therapy. The following chapters are on the indications and contra-indications for malaria therapy, the choice of the organism, the conservation of the blood for malaria therapeutics, the technic of inoculation, the evolution of the cure by malaria, the accidents due to malaria therapy, the reduction of fever by quinine. Under the caption of specific treatment the authors confirm the insufficiency of specific medication alone to arrest the inroads of general paralysis. They discuss the value of specific treatment before and after malaria therapy and insist upon the necessity of an intensive specific course of treatment of high dosage to follow malaria therapy for favorable results.

The main portion of this work is taken up by a presentation in detail of the clinical results obtained not only by the promoters of this method, but by hundreds of others from twenty or more leading countries. To these are added the personal observations and clinical results, in forty-three cases of the authors. All of which confirms the immense value of malaria therapy.

No less attention is given, in the remaining chapters, to the subject of the biological reactions, the pathological anatomy, secondary deliria, the mechanism of action, the prophylaxis of general paralysis by malaria therapy and the medico-legal aspects concerning these unfortunates. There is a complete bibliography followed by a list of the observations cited in the text.

It is written in a clear fluent style which makes for ready understanding and instructive reading. There are numerous charts in the text.

The reviewer has seen fit to present in detail the contents of this volume in order to emphasize the thoroughness and completeness with which the authors have covered the varied phases of this important subject. No other work covers so fully the present views and clinical results of general paralysis and malaria therapy. In the words of the creator of malaria therapy, Prof. Wagner-Jauregg, whose preface adds to the value of this

volume: "Il ne manquait au'un expose d'ensemble de toute la question, lacune que le present livre vient de combler d'une facon remarquable."

For this reason this work becomes invaluable and should be in the library of all neuro-psychiatrists and general practitioners.

L. L. CAZENAVETTE, M. D.

Recent Advances in Hematology: By A. Piney, M. D., Ch. B. (Birm.); M. R. C. P. (Lond.). Philadelphia, P. Blakiston's Sons & Co., Inc. 1931. pp. 348.

This third edition of "Recent Advances in Hematology" is one of the best of the small books dealing with diseases of the blood. Two new chapters have been added, one on "Anemias of Low Color Index," and one on "Sickle Cell Anemia." Particular reference has been made to the effects of radiation on the blood.

Notably poor are most of the color plates contained in medical books. It is refreshing and noteworthy to occasion exceptionally well executed, polychrome cell pictures, that do not resemble billboard blotches, or lithographed setting suns. Dr. Piney's artist has distinguished himself with correct color values that would do justice even to Edmund Dulac. Such splendid illustrations are to be encouraged.

MAURICE SULLIVAN, M. D.

Surgical Pathology of the Diseases of the Bones: By Arthur E. Hertzler, M. D. Philadelphia, J. B. Lippincott Company. 1931. pp. 272.

This book treats of the surgical pathology of the bones. It is the first of the monographs on surgical pathology by Dr. Hertzler to be published and is the result of material gathered, experiences encountered and literature reviewed in thirty years of medical teaching. Cooperation with Tom Jones and Jim Barlow is responsible for the excellent pictures which take up a large amount of the page space. The material is presented under the heads of Pathogenesis, Pathology and Histology. The book is divided in two parts, one which deals with diseases of the bone and the other with tumors of the bone. Accompanying each chapter is an explanatory bibliography. The

book is well written although the style is a little strained in a few places and a few somewhat slangy phrases are used which could have been avoided to advantage. The importance of the subject together with the excellence of the illustrations and explanations of the lesion merits the book's wide acceptance.

J. W. WILLIAMS, M. D.

Medical Diseases for Nurses: By Arthur A. Stevens, A. M., M. D., and Florence Anna Ambler, B. S., R. N. Philadelphia, W. B. Saunders Company. 1931. pp. 502.

This is another useless contribution to medical literature. I am sure that anyone who has ever tried to instruct nurses, and who will take the trouble to glance through Dr. Stevens' and Miss Ambler's poor effort will concur in my sweeping condemnation. It completely falls short of its purpose which is: to give the nurse an understanding of the principles of disease and to enable her to gain an intelligent idea of the objects the physician hopes to obtain in his ministrations to the afflicted.

Thoroughly overlooked is the fact that only a small percentage of nurses are college graduates, that even if they were all college graduates the authors' manner of presentation would be difficult to assimilate. Covering the whole realm of medicine in a concentrated form his book will hardly be delectable to the nurse mind. Junior medical students with infinitely better basic preparation for the digestion of a course of medicine would find such a book unappetizing.

Perhaps if the treatise was ten times as lengthy and was filled with similes, parables and endless naive expository elucidations it might have some value. Written as it is, it is valueless, and will only serve to discourage the intelligent appreciation of medicine among the Nightingale sisterhood.

Dr. Stevens does not know his nurses and it appears that his collaborator, Miss Ambler, did not do much collaborating.

There are several typographical errors which may cause student nurses some concern if they ever read the text.

MAURICE SULLIVAN, M. D.

Medical Jurisprudence: By Carl Scheffel, Ph. B., M. D., LL. B. Philadelphia, P. Blakiston's Son & Co., Inc. 1931. pp. 313.

Several texts dealing either wholly or partially with medical jurisprudence have been published in the last ten years. Those dealing partially with medical jurisprudence have treated in addition toxicology and some of the pathology which might be of importance in medical legal cases. This book by Dr. Scheffel deals wholly with the legal phrase of the subject. He treats the subject, however, from a somewhat different viewpoint and attempts to acquaint the student and physician with how legal factors affect him in the everyday practice of medicine and surgery and his standing as a sociologic factor in the community. The book contains much very valuable information for the man who intends to practice medicine. A sufficient number of cases are cited to make the text extremely interesting and to clearly illustrate points of importance. This book is written in a style sufficiently simple for the high school student and sufficiently compact for the busy practitioner. The subject matter and its clear presentation warrants the book's wide acceptance.

J. W. WILLIAMS, M. D.

PUBLICATIONS RECEIVED.

The Macmillan Company, New York: *How's Your Blood Pressure?* by C. L. Andrews, M. D.

William Wood & Company New York: *The Nurse's Medical Lexicon*, by Tomas Lathrop Stedman, A. M., M. D. *The Medical 1932 Record Visiting List*.

Williams & Wilkins Company, Baltimore: *Essentials of Psychiatry*, by George W. Henry, A. B., M. D.; *A Thousand Marriages*, by Robert Latou Dickinson and Lura Beam.

J. B. Lippincott Company, Philadelphia: *Surgical Pathology of the Skin, Fascia, Muscles, Tendons, Blood and Lymph Vessels*, by A. E. Hertzler, M. D.

Charles C. Thomas, Baltimore: *Asthma and Hay Fever in Theory and Practice*, by A. F. Coca, M. D.

The Rockefeller Foundation, New York: *The Rockefeller Foundation Annual Report, 1930*.

New Orleans Medical

and

Surgical Journal

Vol. 84

JANUARY, 1932

No. 7

AN EXAMPLE OF WHAT SURGERY CAN DO IN SAVING A CERTAIN GROUP OF CASES OF PULMON- ARY TUBERCULOSIS AS ILLUS- TRATED BY A CASE REPORT.*

JOSEPH A. DANNA, M. D.,†

NEW ORLEANS.

Pulmonary tuberculosis has always been considered a medical disease. So far nothing has been found in the domain of therapeutics that will definitely, or with any degree of certainty, influence the progress of the disease, except placing of the patient in absolute rest and generally building up his strength and resistance. If the treatment failed, it was considered that the patient did not have it in him to come back. In the presence of complications vitally affecting the health and life of the patient, we usually stood by, treated the patient as best we could symptomatically and hoped that the worst would not happen.

Little by little, surgery has conquered tubercular disease in every other region of the body, but not pulmonary tuberculosis. We have learned, however, that the only reason for this was the difficulty of application of the surgical principles of rest to a lung kept constantly in motion in order to maintain respiration, and kept constantly on the stretch by the negative pleural

pressure. One obstacle after another, however, has gradually been overcome, so that now every medical man intelligently treating tuberculosis realizes that there are times when he can get very valuable help from the surgeon, and no tuberculosis hospital is complete unless it contains within itself, or has immediately available, a surgical group with all the facilities for doing every shade of pulmonary and thoracic surgery.

The most generally used and usually the first procedure of a surgical nature employed is artificial pneumothorax. Although advocated and used by Forlanini in the early 80's it was little known to the medical profession of the country at large before the World War, but came very rapidly into general use in America shortly afterward, and is now being employed in suitable cases by every one treating tuberculosis. In the course of treatment by pneumothorax the roentgen-ray check up will show that in some cases as the lung is compressed or draws away from the chest wall, there may be adherent areas of greater or lesser extent which prevent the complete or more thorough collapse of the lung. The result is that the adherent portion of lung may be stretched into a band of varying length and width, sometimes amounting to only a thin ribbon or string. These strands of lung tissue have been the subject of considerable thought and consideration. Jacobaeus of Stockholm has invented a very ingenious instrument, which works like a cystoscope, is introduced into

*Read before the Orleans Parish Medical Society June 22, 1931.

†From the Department of Surgery, Tulane University of Louisiana Graduate School of Medicine, and the Department of Surgery, Hotel Dieu.

the pneumothorax cavity through a trocar passed through the chest wall and by means of it these bands are cut with a low current electric cautery. A few men have been so bold as to advocate, and a still smaller number to practice, open exposure of the pleural cavity and incision of these bands under direct vision. The advantage of open exposure is that any hemorrhage occurring can be immediately taken care of. Very little, however, of this work has been done in the past, because of the fear of contaminating the pleural cavity and producing a purulent empyema.

In a recent article¹ I described a treatment for empyema as applied to thirty-five consecutive non-tubercular cases, consisting of aspiration and air replacement without drainage, with uniformly good results. Among other things, I stressed two points. First, that empyema usually resulted from the spread of infection into the pleura from an adjacent structure, such as the lung, etc. Second, that no matter what treatment was employed, pus would continue to re-accumulate as long as the infecting focus was still feeding infection into the pleura.

With these introductory remarks, I will proceed to describe the following case:

CASE REPORT.

Sidney Bourgeois, aged 21 years, was first admitted to the Hotel Dieu August 15, 1928, with a history of being sick three years, beginning with a cold and a bad cough which had persisted since. He had lost twenty pounds in weight. Two years before admission he had a severe coughing spell, following which and up to the time when seen, he would get out of breath on the least exertion. A diagnosis of tuberculosis had been made on him and he had had the usual rest treatment without any improvement. He brought with him a roentgenogram of his chest taken a few days before which showed both fluid and air in the right chest cavity with considerable fibrosis and retraction of the right lung. Aspiration and air replacement was done on him, the chest cavity being entirely emptied of thick creamy pus, which contained large numbers of streptococci, bacilli of influenza, and pneumococci. The cavity rapidly refilled and in the course of 26 days his right chest was emptied five different times. In addition to the organisms named, tubercle bacilli were

found a number of times after the first aspiration and at times in large quantities. A study of the roentgenograms taken after the cavity was emptied showed a narrow process of lung resembling the spout on a coffee pot binding the lung across the empyema cavity to the chest wall. Recent experience in the treatment of a considerable number of empyema cases led us to the conclusion that the cavity was refilling with pus so rapidly and in such quantity that this must be due to an opening in the lung surface which was feeding his empyema, and that everything being equal, this opening probably was situated in the stretched portion of lung tissue just referred to. Wisely or not I decided that if this process of lung tissue could be cut away from the chest wall and permitted to retract, it might result in early closure of the opening and stop re-infection of the empyema cavity and thus permit a cure of his empyema. This was explained to him, and on September 12, 1928, under paravertebral anesthesia, an extensive intercostal incision was made in the fourth intercostal space with its middle in the posterior axillary line. The tissue band was readily located and by means of a curved scissors guided by the finger it was cut away from the chest wall rather at the expense of the parietal pleura than of the tissue itself. The tissue process dropped back on the lung, the lung itself retracted somewhat, all without any pain or discomfort to the patient. The intercostal incision was now closed tight with three rows of sutures, and as pus re-accumulated it was repeatedly aspirated and replaced with air. The wound leaked a little a few times when he filled up and required aspiration, but finally healed completely. There was never any drainage of any consequence through it. The empyema cavity gradually became smaller until finally it reached the stage where it was quite stationary for a period of a month or more. It was felt that a phrenicectomy might help to obliterate the cavity, and this was therefore done on August 26, 1929. The cavity got rapidly smaller after this procedure and finally completely closed. Both roentgenograms and needle punctures were now repeatedly negative for fluid. As his cavity diminished in size, his general condition improved, and he weighed more than he had ever weighed before. He was kept in the hospital for several months after being apparently well, in order to make sure that his empyema was finally cured. He had practically no cough when he left the hospital on April 7, 1930, tubercle bacilli could not for many months be found in his sputum, and he has been well ever since.

Here was a case of pulmonary tuberculosis complicated with pyo-pneumotho-

rax, in which smear and culture showed a mixed pyogenic infection. This is a most formidable complication, for which the best authorities advocate tube drainage, preferably closed drainage, and irrigation in some form. If after such drainage, the patient recovers from the initial acute septic process, shock, etc., the result is usually the development of a chronic empyema, with a more or less constantly discharging sinus. For this some serious surgical procedure is indicated such as thoracoplasty, which has its own more or less high mortality.

In the light of my previous experience, I felt that I could control his empyema by aspiration and air replacement, and this I proceeded to do. The cavity continued to refill so rapidly, however, that it was decided that he must have an opening on the lung surface which fed the empyema cavity with infection. I felt that everything being equal, this opening would probably be found in the stretched portion of lung. I also felt that this stretched band of lung tissue prevented further compression of the lung which might be considered necessary to cure the tuberculosis later. So that there were two reasons for detaching this band from the chest wall if possible. The thing next to consider was the selection of the procedure to be employed and the dangers involved. Not possessing a Jacobaeus apparatus, the only thing left was a consideration of free opening of the chest cavity. There was no fear of an open pneumothorax because the lung was quite fibrotic as shown by the roentgen-ray pictures and would probably not retract very materially. The two dangers then were hemorrhage and a resultant empyema. Hemorrhage I felt could be much more readily dealt with by freely opening the cavity than by any other method. The empyema with mixed infection he already had, so there seemed to be no reason to hesitate about going ahead. I decided that after that operative procedure I would close the chest wall by suture com-

pletely, and continue to treat the patient as though it were a fresh acute empyema case. This I proceeded to do with very gratifying results. When a point was reached where the cavity continued to very slowly refill but not diminish in size, I felt that the fibrotic lung had expanded as far as it could and that something would have to be done to promote the reduction in the size of the cavity and final healing. I therefore decided on a phrenicectomy, intending, if this was not sufficient, to follow it up later by a thoracoplasty. The improvement after this phrenicectomy was so marked and so rapid that nothing further, however, had to be done.

The progress and final outcome of this case brings out the following points: First, that by the aid of the aspiration and air replacement treatment, one may freely perform procedures within the chest cavity, even in the presence of empyema, feeling secure in being able to treat the resultant empyema, if any, after closing the chest cavity. Second, through this means many cases of tuberculosis which the surgeon in the past has been fearful of operating on because of the possible development of empyema will be brought within the field of safe operability and thus increase the number of lives saved in the final analysis. Third, I believe chronic empyema may be also treated by freely opening the cavity, treating the bronchial fistula that usually is found as a causative agent by suture, cautery or otherwise, closing the chest, and then treating the empyema cavity by aspiration and air replacement just as in the acute cases.

In closing, let me take this opportunity to appeal to each and every one of you on behalf of the poor tuberculous patient. Years ago we were taught, and experience more and more bears out the fact, that most tuberculous patients died not of their tuberculosis but of secondary infections especially in their lung cavities and from septic pyothorax, etc.

Unfortunately, most of us, especially since the anti-tuberculosis movement with its segregation of patients, etc., approach a tuberculous patient almost as the ancients did leprosy, touching him barely with the finger tips, and occasionally with a stethoscope, and feeling that there is something filthy and contagious about it. I may be wrong. I hope I am. But the fact is that we do not see our tuberculous patient as often as we should and do not actively follow what is going on in his chest. If he gets worse—well, he just did not have the resistance. As a matter of fact, when a patient gets worse, it is because of some new complication. And we are learning to deal successfully with many of these complications, especially with surgery, so that more and more the only field of tuberculosis that belonged distinctly to the medical man is gradually being encroached on by the surgeon. I am firmly of the belief therefore that more frequent and attentive observation of our tuberculous patients would very materially reduce the present mortality from pulmonary tuberculosis.

DISCUSSION.

Dr. Ochsner (New Orleans): I think Dr. Danna is to be congratulated upon the results which he has obtained in this case, because the treatment of tuberculous empyema, especially those cases in which a secondary infection exists, is unsatisfactory. It is questionable, however, whether similar results could be obtained in a large series of cases. However, the treatment is rational and I feel that it certainly deserves a trial.

The surgical treatment of pulmonary tuberculosis is not a new chapter in the treatment of tuberculosis, but is an extremely valuable one. In considering surgery in tuberculosis it is important to realize that surgical procedures are merely an aid and do not constitute the entire treatment. Surgical procedures are especially indicated in that type of tuberculosis in which there is a tendency toward fibrous tissue proliferation.

It has been well illustrated in statistical analyses of cases operated upon that the parenchymatous type of tuberculosis is not well suited for surgical procedures, but that in the fibroid type of phthisis some type of surgical collapse is especially indicated. In a series of 35 cases operated upon in Sauerbruch's clinic in which the lesion was largely of the fibrotic type, 40 per cent were cured,

34 per cent were free of tubercle bacilli, 17 per cent were better, 3 per cent were unchanged or worse, in 3 per cent there was an immediate mortality, and in an additional 3 per cent there was a late mortality. In contrast to the results obtained in a group of 39 cases in which the tuberculous lesion was largely of the exudative type: none were cured, 13 per cent were free from tubercle bacilli, 15 per cent were better, 18 per cent were unchanged or worse, there was a 25 per cent early mortality, and a 29 per cent mortality.

There is one more point which I should like to emphasize and that is the fibrotic type of pulmonary tuberculosis in which there is cavitation, there also occurs secondary infection. Frequently in this type of patient the secondary infection is responsible for the continuation of the symptoms. In such a case repeated introductions of iodized oil are efficacious in controlling the secondary infection.

Dr. Shirley Lyons (New Orleans): I think Dr. Danna is to be congratulated on his results in this case. Even though the results in the next few cases are not so brilliant, he would still have a very satisfactory batting average.

Surgery holds out much promise in certain cases of pulmonary tuberculosis. As early as 1848 James Carson, addressing a meeting of Phthisiologists, made the statement that, in his opinion, if ever pulmonary tuberculosis was to be controlled, it would be by mechanical means. In that statement he brought forth the idea of surgery. Very little advance was made with the idea until 1895, when John B. Murphy reported a number of cases where artificial pneumothorax had been used in the treatment of pulmonary tuberculosis.

Much progress has been made from that time by surgeons. We have been rather slow following up in this country, but it seems as if the time has arrived when we are to make rapid progress in this field of surgery. Tuberculosis is a great field for surgery and I am looking forward to the future with much encouragement.

Dr. Robbins (New Orleans): I think that the presentation of the surgical treatment of tuberculosis before this body is certainly one that should have been brought long before to our presence and I think that Dr. Danna is to be congratulated upon breaking the ice upon this important aspect of the treatment of tuberculosis.

However, in our enthusiasms, we are sometimes liable to overlook a few important facts. Dr. Danna, I think I am quoting him correctly, says the time will come when most cases will find their way to the surgeon and the medical field of usefulness will be greatly lessened. This is

probably merely the remark of an enthusiast in his field. All men who do a great deal of tuberculosis work are convinced, and even surgeons like Alexander and Nagle, who have devoted a great deal of time to tuberculosis, are convinced that all patients should first be given the benefit of medical treatment. Treatment of tuberculosis medically or surgically means one thing—absolute rest. Sometimes sufficient rest comes by lying in bed, sometimes by artificial pneumothorax. In recent years, we have been greatly benefitted by phrenic nerve operation and, of course, the closed thoraco-lasty has come into vogue in recent years in larger numbers.

But we must not forget that surgery in the hands of skillful men is not surgery in the hands of the general man and, if we can still employ mechanical aids that do not require great skill, I certainly think we must insist they be used. Remember, in the light of fact, we have had great help from them up to now.

It has been said this evening that pneumothorax treatment, because of necessity of constant refills, may tend to give the patient an empyema. I don't think we see so much empyema as a result of pneumothorax. Now for the phrenic nerve operation. This operation, it is true, in the hands of men like Dr. Ochsner is an excellent procedure. But quite a few calamities have been reported as a result of the phrenic nerve operation from error in getting the wrong nerve. Also, digestive disturbances have resulted from cutting the left phrenic nerve. These things must not be lost sight of. When these waves of enthusiasm come and everyone begins to do surgery, there will be too much surgery done. As I previously remarked, in the treatment by all men, both surgical and medical, the first thing the patient should be given is the benefit of rest in bed. Only recently it was reported that cavities, large cavities, were healed by natural means and without the help of pneumothorax. The cavities were shown to diminish in size and to disappear. It was also shown that tuberculosis and even moderately far advanced cases when followed carefully by serial roentgen-ray studies, actually showed resolution, a thing we did not think would occur a few years ago. Healing by resolution actually takes place instead of fibrosis.

I think we should all take the stand that surgery has left an important and indelible impress on the treatment of tuberculosis and has a decided place, as statistics go to prove very forcibly. But we must not lose sight of the fact that the treatment of tuberculosis is medical and that only after a case does not yield to medicine must we resort to surgery.

Dr. Dempsey (New Orleans): The papers of Dr. Danna and Dr. Ochsner are encouraging to a considerable extent. The generosity of these two recognized leaders in surgery, who have given of their time and experience, should indeed be commended. I feel that everyone here tonight will admit that, in the presentation of these two treatises, important and useful data has been supplied for the welfare of the advanced tubercular.

A mere three years is too often the life span of the tuberculosis patient. Despite the concentrated effort of thousands of medical men and trained technicians, to say nothing of the millions of dollars that have been spent in educational, preventive, and curative activities, I do not think there has been a 2 per cent decrease in the disease itself. What reductions have from time to time become manifest may be attributed in the majority of instances to the categorization of tuberculosis cases as pneumonia, heart disease, nephritis, etc.

The most effective means at our disposal today is surgery. Medicine, properly so-called, has done as much as is possible to do within its scope. Only surgery can accomplish what remains to be done.

In my opinion, the employment of surgery is an advanced step in the progression of tubercular treatment. Most of you will no doubt recall that at one time a hypodermic of morphine was the only thing that could be given a tuberculous patient, and that it was difficult to get the medical man to frequent the tuberculosis ward. You no doubt remember what a difficult task it was to procure a nurse for the service, and with what dearth of enthusiasm the interne fulfilled an assignment to take histories or make examinations in a tuberculosis ward.

But today such a condition of apprehension exists no longer. In fact, it has become well-nigh axiomatic that the surest place NOT to get tuberculosis is in a well-regulated hospital for tuberculosis. So also will it become customary in the future to employ surgery as an arrestive or curative means, where medication has proved inefficacious.

In conclusion, I should like again to congratulate Drs. Danna and Ochsner on the informative value of their papers.

Dr. Danna (closing): I hope nobody has interpreted what I said to mean that we should open up the chest of every tubercular case any more than Dr. Ochsner implied you should do a thoracoplasty on every patient with pulmonary tuberculosis.

I want to bring out first, that this case, a few years ago, would have been allowed to die without anything being done for him. Second, that with the aid of aspiration and air replacement we were able to do an open operation and remove the cause of his pyopneumothorax without the fear of a probable chronic empyema, which would have been a very serious additional complication. Empyema complicating tuberculosis is now usually treated by drainage, mostly by closed tube drainage, occasionally by open drainage. The consequence is that a large number develop chronic empyema. This means a large pus cavity, which does not drain well, gives septic symptoms, and finally wears out the patient's resistance. The result is a large cavity in his chest that is not only pulling down his strength but making him an easier pray to his tuberculosis, and the patients usually die.

These cases of chronic empyema can be cured by thoracoplasty, but, as Dr. Ochsner will tell you, thoracoplasty is a very serious surgical procedure. There is a certain mortality in the operative procedure itself. I believe that with the help of aspiration and air replacement as used in this case, we are able to operate on certain patients on whom we could not otherwise operate safely, and I believe there is little danger of development of chronic empyema. I was in a quandary for a while during the progress of this case about the contradictory principles involved in the treatment of empyema on the one hand and the treatment of tuberculosis on the other; whether we wanted the empyema cavity to close and heal, or, in the treatment of tuberculosis, whether we wanted to get the lung compressed, whether we wanted to maintain pneumothorax. In order to do the latter, I made my aspirations not so frequent as I ordinarily would, and on some occasions I put back more air than we got back fluid, the idea being if that lung was going to expand, to make it expand slowly so as not to produce any expansory pull on the lung tissue and not stir up the tuberculosis process into activity.

I was very much encouraged by the fibrous picture of the lung. As time went on, there was more and more fibrosis in the lung, which, as Dr. Ochsner brought out, is a favorable condition and which is responsible for the fact that the patient got well.

I will agree that if we took one hundred cases of pyopneumothorax complicating pulmonary tuberculosis we probably would have to do a thoracoplasty on maybe fifty of them—they would not get well with simple aspiration and air replacement. In fact, I expected to have to do a thoracoplasty on this case, but he got well before it was necessary. I certainly hope Dr. Robbins does

not think I am going to advocate turning over the tuberculosis wards of Charity Hospital to surgery. Medical treatment cures a great number of cases, and, if the medical man is interested in the work and will see his patient frequently enough and watch for complications, I say that is fine, that is the thing to do. But he should be in a position to handle any possible complication. He should not only have an open mind and call in a surgeon when necessary, but he should be in contact with a surgical group that is thoroughly equipped to do anything under the sun in the shape of surgery either on the lung or thoracic cavity. You want the very best surgical help you can get.

I am glad Dr. Dempsey brought out the fact that while the mortality from tuberculosis diminished rapidly during the course of the tuberculosis campaign, there has been very little diminution in recent years. The object of my remarks has been to try to find one avenue through which we can diminish the mortality to at least a certain extent.

REFERENCES.

1. Danna, Joseph A., M.D., Ph.D. The treatment of empyema by aspiration and air replacement without drainage, review of thirty-five cases, *Journal of the American Medical Association*, 96:1453-1456, 1931.

THE RUPTURED APPENDIX AND ITS MANAGEMENT.*

J. C. WILLIS, M. D.,

SHREVEPORT, LA.

In dealing with the subject of appendicitis I think there are two points so obvious that we can all agree without question; first, that the anticipated reduction in the mortality of appendicitis by improvement in technic developed through surgical experience has not been fully realized, for, as a matter of fact, there is an abundance of evidence at hand to prove that the mortality is still on the increase. Nevertheless, we were not quite prepared for the report recently issued by Dr. Frederick Hoffman, the distinguished medical statistician, of the Prudential Life Insurance Company, in which his investigations showed that within the past 19 years the death rate per 100,000 population in 60 of our largest cities has increased from 13.3 to 18 per cent, and in

*Read before the Louisiana State Medical Society, New Orleans, April 14-16, 1931.

one of our Southern cities the actual death rate was 70.9 per 100,000. These figures, as humiliating as they are, fairly represent the conditions as to the mortality of appendicitis in this country at this time. As far back as 1915, the late Dr. John B. Murphy, a few months before his death, made the unqualified statement that the death rate from appendicitis was almost criminally high and should be reduced, and as yet the answer has been a steadily increasing mortality. The most natural exclamation is why and what is to be done about it? All interested parties, the public, the great life insurance companies who pay the bills, public health associations, the entire medical profession itself and in fact the whole country is beginning to take notice and beginning to wonder why, after having reduced the mortality of practically every other acute disease, we cannot reduce the mortality from appendicitis?

My second proposition is that in an otherwise healthy individual the mortality from an acute attack of appendicitis properly operated upon at the proper time would be almost a negative quantity. This statement can be verified by investigating the records of most any class A hospital in this country. So, evidently our increasing mortality is due largely either to the physical condition of the patient when he comes to us for operation or an error in judgment in the management of his case after he has become the surgeon's responsibility. When we take into consideration that a very large proportion of those who contract appendicitis are among the young, mostly children and young adults, who are practically free from those degenerative changes so common among those past middle life which so often complicates any acute condition that may overtake them, we may largely exclude them from consideration in this connection. Evidently to meet this condition effectively at this time will require a very careful consideration and the co-operation of the entire profession, with the laity included, at least to some extent, along certain lines.

Dr. Fred C. Fisher, writing recently in the West Virginia Medical Journal, in making a plea for a reduction in the mortality of acute appendicitis, says that the entire study of this disease should be gone over and every phase in its entirety carefully considered. Of course, the first consideration is that the family physician should insist upon an immediate operation for all of his cases of acute appendicitis, but unfortunately this alone will not suffice, for so often the family physician is called after delay and self-medication of castor oil or salts has converted a simple acute inflammatory condition to one of the most serious conditions that confront the operating surgeon. So, the public should be taught with emphasis the danger of self-medication, especially in acute abdominal conditions. Hence, it would seem that the ruptured appendix and its complications is the crux of the whole affair and is responsible largely for the mortality of appendicitis, all of which could be largely avoided, provided, of course, all acute conditions could be brought to an operation before this catastrophe has taken place. So, obviously under the present conditions, the first movement to reduce the mortality in question would be to increase the number of primary or early operations for acute conditions, and, second, to give more careful consideration to those who come to us after a rupture has taken place. I think one of the most common mistakes made is to follow the axiom, that on operation for appendicitis should be performed as soon as the diagnosis is made regardless of conditions. In my judgment that should be governed solely by the condition of the patient when first seen by the surgeon. This axiom, however, should apply not only to acute conditions but can usually be applied to very recent ruptures while the abdominal muscles are still more or less rigid, and can also be applied to those with a well circumscribed abscess with no evidence of a general peritonitis. On the other hand, those that give a history as a

rule of several days duration with distended abdomen, thready pulse and often only one sound of the heart heard on auscultation, low blood pressure, cold extremities, especially when accompanied by a silent abdomen and diminished pain, call for the tentative non-operative treatment as advocated by Ochsner, which, if properly carried out, will assist very materially in reducing the present mortality of appendicitis, for many of these cases can be tided over a crisis by this treatment that would have otherwise proved fatal and can be safely operated on at a later date.

The Ochsner treatment without a doubt is the most valuable agent under these conditions, and its use will be the means of greatly reducing the mortality of acute fulminating types of appendicitis, and, those two great surgeons, whom many of us have had the pleasure to know and have profited by their teachings, Drs. A. J. Ochsner and J. B. Murphy, will be long remembered by what they have contributed by their genius to American surgery, but they will be immortalized by the Ochsner treatment and the Murphy drip.

In dealing directly with the ruptured appendix and estimating its hazards in its many different phases there are many things to be considered: for instance, the time that has elapsed since the rupture has taken place, the nature of the infection and the progress it has made as well as the location of the appendix within the abdomen. Infrequently the retroceally displaced appendix, especially those placed high within the abdomen, are sometimes located well up under the border of the liver near the hepatic flexure of the colon. Others unfavorably located can be classed with those near the median line, frequently encased within the walls of the small intestines; then again you will find a perforated appendix lying bare within the abdominal cavity with no apparent effort of nature to throw a protecting wall about the infected organ. All of these carry with

them their individual hazards especially after a rupture has taken place.

Another consideration of special interest bearing on this subject of mortality is the nature of the infection or infections with which we have had to deal. It has been demonstrated that there are three outstanding bacterial species that may be involved in acute appendicitis. The most dominant, of course, is the colon bacillus. Perhaps the next is the green streptococcus (the hemolytic type fortunately being very rare as a primary infection). The third is the *B. Welchii* and there is an abundance of evidence to show that the percentage of mortality increases rapidly when more than one organism is involved in the infective process.

It was not my intention in this paper to deal in a general way with the post operative treatment of the ruptured appendix for I have nothing specially new to offer. First, what I wish especially to stress is some features of the operative procedure itself. I think the old axiom, when in doubt drain, should have no place in abdominal surgery. If the abdomen is to be drained it should be for a very definite purpose. Indiscriminate drainage of the abdomen is a poor substitute for good surgery. In the first place, it has been shown conclusively that it is impossible to drain the general peritoneal cavity, for the drains are encapsulated by adhesions within a few hours; furthermore, they invite secondary local infections and organized adhesive formation, and we should remember that the peritoneum has a dual capacity for the transudate and absorptive properties of the peritoneum are of like capacity, and when irritated by an infection the transudate, which is abundantly excreted, contains not only fibrin and cells for walling off the infection, but contains a large number of antibodies with which to combat an infection, and if allowed by drainage to escape, you will be sacrificing the most efficient ally at

your command at the time most needed. Of course, this does not apply when we are not able for any cause to remove the foci of infection cleanly, for you are then dealing with an entirely different proposition. As a rule in our clinic, we have, for some time adopted a definite procedure, which, of course, is subject to individual conditions. As a rule we do not drain the abdomen following the removal of a gangrenous appendix if it is removed cleanly. Neither do we drain ordinarily after the removal of a recent simple perforated appendix, but always look carefully for the small one or more fecoliths that are usually incident to the perforation. Neither do we drain ordinarily the small circumscribed abscess with well defined walls in which we are enabled to remove the appendix cleanly with little or no debris or necrotic tissue within the cavity. In dealing with the abscess we enclose it first with a coffer dam of moist gauze to prevent contamination in the free abdominal cavity. After cleansing it of its contents and swabbing the cavity walls with equal parts of tincture of iodine and alcohol and covering it with omentum, we close the abdomen tightly without drainage as stated above. On the other hand we drain freely all cases in which from any cause we are not able to remove the appendix cleanly, and in large or multiple abscesses. With extensive involvement we drain them freely and with little or no closure, and in infected cases a splendid procedure, as first advocated by Dr. Maes of New Orleans, and which is especially adapted to elderly people with appendicitis, is the appendicostal drainage via the cecal route. This you will find to be a splendid procedure in the cases which it is intended to serve.

In regard to enterostomy in post operative ileus this is a life saving procedure for this condition if done in time, but if you wait until peristalsis is arrested it is more than useless as you can drain only a small loop of the bowel which will not compen-

sate for the additional shock you have necessarily given your patient.

The methods of drainage outlined above, which we have adopted in our clinic, has been brought about by a gradual evolutionary procedure on our part, by gradually draining less and less in infected cases, which has finally resulted in the procedure outlined above. The advantage of the non-drainage of the abdomen when the lack of it is not a menace to the life of your patient is obvious. There is less danger from a mixed infection with secondary abscess formation. The incidence of organized adhesions is reduced to a minimum, the abdominal wall is left stronger, the danger from ventral hernia, so common after drainage, is almost if not entirely eliminated. Not a single case of ventral hernia has occurred in any of our cases to this date that we have been able to trace although our cases will date back for more than three years.

Hospitalization is reduced although we have not as yet been able to make as much reduction in hospitalization time as apparently we should and hope to do in the future, for in nearly all of our cases up to now, in spite of our efforts to the contrary, superficial infection of the soft parts has developed, which necessitates a few days more of hospitalization than the ordinary simple case of appendicitis.

DISCUSSION.

Dr. J. A. Danna (New Orleans): I do not know of any subject which could be brought before us that we ought to take more seriously than this. The first consideration is the one of early operation. The difficulty with the average man, or rather with the man who does not see much surgery, is that he frequently does not know whether the condition he is facing is appendicitis or is not. If he gets into the habit of waiting until he is sure, he is going to lose a great many cases that the man who takes the other extreme and practices immediate operation is going to save. The latter type of man is not going to have any very serious mortality, though he may do some unnecessary operations. In short, appendicitis is a very serious condition, and my own

feeling is that when we have any suspicion, any suspicion based on material grounds, that we are dealing with it, we ought to do the bold thing and act on the suspicion, in other words, we ought to operate at once. The cautious man is going to lose cases that the bold surgeon is going to save.

There is a special type of appendicitis which demands special consideration. I refer to the patient who has an acute pain and is rather ill for a day or two, after which his pain disappears and he feels much better; then the pain returns, and when the surgeon sees him he is acutely sick, distended, with a fast and thready pulse. That is the kind of patient to keep your hands off for the time being. Nurse him along until his condition improves, until his disease is localized, and then operate, but you will kill him if you operate at once.

As to drainage, I think Dr. Willis is quite correct in his contention that drainage should not be done unless definite indications for it exist. If you have an appendix that is gangrenous but that shows no evidence of a rent in the wall, then drainage is not indicated. But if there is a rent in the wall, if there is a slough, if there is a fecalith free in the peritoneal cavity, drainage is surely indicated. In short, if there is any suspicion at all of pathology free in the peritoneal cavity, outside of the appendix, drainage must be done.

As to ileostomy, surgeons are divided into two camps. One group will quote large series of recoveries after the procedure, another group will tell you most of their cases have ended fatally. The explanation is that the first group does the operation frequently and in more or less mild cases, the other group does it only occasionally and always in more serious cases. With one group it is almost a routine procedure, with the other it is almost a last resort. The proper ground, of course, is midway between the two extremes.

In closing, let me call your attention again to the fact that the mortality of appendicitis is rising, and that it has been rising for some years past. I believe the reason is that we do not take the disease as seriously as we once did, and for that reason I would advocate again what I said in the beginning, that this is one disease in which operation is warranted on a well-grounded suspicion that it exists.

Dr. J. R. Brown (Shreveport): I have had the pleasure of assisting Dr. Willis with numerous of

the operations he has discussed in his paper, and would add one thing which he fails to mention, that in his closure of the ruptured appendix he uses interrupted sutures as an added support to the continuous sutures.

With the permission of Dr. Willis I looked up the hospital records, and find that during the past 2-3 years he has operated 31 cases of ruptured appendix, not including the group in which the appendix was not removed, but only drainage instituted. The ages of these patients ranged from 5 to 58 years. Twenty of these cases were closed without drains being left in, the remainder of eleven cases were drained freely. In each of the twenty cases closed without drainage the appendix was not merely gangrenous, they were also ruptured, and there was either free pus or abscess formation present. Of this group of twenty undrained rupture appendices, two presented no post-operative drainage, but progressed as in a simple appendix, the remainder, however, presented a secondary drainage from the subcutaneous tissue which was from 2-24 days in duration, with an average of 9 days, and the hospital stay days varied from 9 to 30, with an average of 17 days. No case was discharged until the wound was clean and almost entirely healed. The mortality rate for the 31 cases was 12.8 per cent, but in the group not drained it was only 5.0 per cent. The single death occurred in a patient who was a chronic alcoholic.

In general I might state that the post-operative complications are lessened in severity and number, also in no case has a hernia been noted following this procedure.

Dr. J. A. Hendrick (Shreveport): I want to comment particularly on the type of case which exhibits a circumscribed abscess. The patient is seen four or five days after the onset of the illness, with a definite mass in the right side. The temperature is 100° or 102°, and the diagnosis is clear. I have looked up the last 11 cases of this type which I have seen, and in which I have used expectant treatment entirely. The patient is kept at rest in bed, with ice caps to the affected part, fluids freely given, pain is relieved, but nothing surgically is done unless the indications strongly warrant it. Ten of the eleven cases I mention have gotten along well on this treatment; one had to be drained because the abscess increased in size and began to fluctuate. In three cases a later appendectomy was done. If we handle these cases as we used to do, by immediate

operation, we are going to increase our mortality. The danger of sepsis and of rupture into the peritoneal cavity must be considered, but I think it is over-rated. In my experience these abscesses rupture into the bowel if they rupture at all, not into the peritoneal cavity. Later, according to the indications, drainage can be done if the mass does not disappear in a reasonable length of time. After these symptoms subside the appendix should be removed and the procedure can be done as a clean operation with practically no mortality.

In discussing acute appendicitis it is important to differentiate the two groups of disease which Wilkie first pointed out, and for which we owe him much gratitude. As he says, there is a type of appendicular disease which exhibits an acute inflammatory reaction and a type which is caused by obstruction. Patients with acute inflammatory disease die of complications but not of the original disease because the diagnosis is usually very clear. Patients with the obstructive type furnish more of a problem, and the difficulties of diagnosis are increased by the fact that this variety is not emphasized as it should be. The patients do not at first seem acutely sick. They have no fever, no leukocytosis, their chief complaint is colicky pain. The physician frequently assumes that the trouble is not appendicitis, whereas it is really appendicitis of the most severe type. These are the cases in which there is obstruction, perhaps by a fecalith, with narrowing of the lumen, and resulting gangrene and perforation, which causes, in turn, a general peritoneal infection. In the other variety there is an inflammatory exudate, perhaps abscess formation, but the process remains local.

I am in entire accord with the plea for conservative treatment in cases in which it is indicated; it is undoubtedly the method of choice where there is a beginning localization. But it requires a great deal of surgical judgment to determine that this is the case, and I really believe that the man who is not seeing enough patients to be certain of himself will obtain better results if he operates routinely, though the man who is seeing enough cases to be able to form an estimate from the clinical picture will save lives if he groups his cases into those in which the disease is localizing and those in which it is not.

VERUMONTANITIS: ITS RELATION TO IMPOTENCY.*†

L. B. MOSELEY, M. D.,

JACKSON, MISS.

Realizing that impotence is only a symptom and not a disease, and that the patient's diagnosis of his symptom is as good as the physician's, it behooves us to make a complete and prolonged study if necessary to see if we cannot find an underlying cause. It is not more reasonable to prescribe for a patient with impotence without the proper examination, than it is to prescribe for a patient with a headache without examination of the optic disk.

The diagnosis of impotence, *per se*, is quite a simple task; the patient will tell you that he is impotent. To determine the cause of the impotence the history is the most important factor. Naturally the history should be as complete as possible, and while taking the history, an attempt should be made to localize the disturbance as nearly as possible, whether of the libido, the erection, or the ejaculatory center. The history should naturally be followed by a complete physical examination, supplemented by blood and urine examination. Diabetes, nephritis and locomotor ataxia should be kept in mind. A special examination of the genito-urinary tract should be made and, unless absolutely contra-indicated, an endoscopic examination with especial attention to the condition of the verumontanum is indispensable.

In this paper I shall not attempt to go into the many causes of that constant

*Read before the Section on Surgery at the Sixty-fourth Annual Session of the Mississippi State Medical Association, Jackson, May 14, 1931.

†In the preparation of this paper I wish here to express my appreciation of the kindness and assistance of Dr. C. G. Holland, formerly of the Department of Urology of the Cleveland Clinic, and the Brady Institute of Urology, also Drs. Scott, McQuiddy and Collins of Birmingham. These gentlemen placed every facility at my disposal for study and observation.

terror and nightmare of the male mind, impotence, but shall try to limit myself to one of the main causes of impotence—that is, verumontanitis.

Briefly, a word regarding the anatomy of the verumontanum. It is situated upon the posterior wall or floor of the prostatic portion of the urethra, as a narrow longitudinal ridge, formed by an elevation of the mucous membrane and its subjacent tissue. Normally it is 15 to 17 m.m. in length and about 3 m.m. in height, having a clean, white glistening appearance, supplied with many blood vessels, lymphatics and nerve endings. According to Kobet, it contains muscular and erectile tissue.

Neither the physiology or the pathology of the verumontanum has received the thorough attention it deserves. Most text books ignore the subject, or speak of it in very general terms. But we do know that in the presence of an otherwise essentially negative physical examination, that by the proper treatment of a pathological veru, most gratifying results are achieved, though it is doubtful whether verumontanitis is the cause or the result of the associated complaints.

The general symptoms commonly associated with verumontanitis are those of sexual neurasthenia, such as impotence, premature ejaculations, pains over the legs, over the eyes, in the back and perineum; in fact, pains in any and all parts of the body, headaches, dizziness, vertigo, weakness, and a state of chronic nervous exhaustion, digestive disturbances, and any combination of symptoms, often amounting to symptoms of a psychic disturbance. Generally speaking, if the patient has general symptoms of verumontanitis, he is quite unhappy.

The appearance of the pathological veru as seen through the endoscope is variable. It may vary greatly in size and color, ranging from a red, bleeding mass filling the entire endoscopic window, to a small, smooth pale mass of scar tissue, which

scarcely rises above the level of the urethral surface.

In regards to the treatments of verumontanitis, at the present time instillations and endoscopic applications are the most popular. If the posterior urethra and the verumontanum are congested, and give the impression of being boggy, perhaps instillations of a weak silver solution will be required before local applications of a stronger solution can be used. As soon as the very acute congestion has subsided the stronger solutions have the effect of making the veru and posterior urethra much less susceptible to stimulation. Some have gone so far as to cauterize the veru with an electric current, and some have practiced removal of the veru with a punch like instrument. At the present time it is felt that the condition can be cured by less drastic measures. Erosions, ulcerations, and granulations are best treated by local applications of a strong caustic.

The usually associated tender congested prostate, and seminal vesicals, should be treated by massage, most gently, once a week or more often is considered wise.

After the treatment has been continued for several weeks, and we feel that the spinal centers have had adequate time to recuperate, and the local pathology which has been responsible for the impotence has been corrected, it is then very desirable that the patient's first attempt at intercourse be successful. To obtain such a result it may be well to give a mild stimulant, such as strychnine or yohimbin, for a few days previous to the anticipated attempt. It is imperative, however, that the stimulant be discontinued after a few doses.

The above treatment is effective whether the patient be partially or totally impotent, and even in functional impotence where there is no definite pathology present, the psychic effect is most desirable. The prognosis of impotence generally is good under the age of 45, and usually poor over the

age of 50 years. It is to be remembered that impotence is physiological before puberty and in old age. Where intercourse has been normal before the onset of symptoms, and a history of the aforementioned etiological factors is given, the prognosis is good. It is especially good in those acute forms, in otherwise healthy individuals, when resulting from excessive coitus, ungratified desire, withdrawal, and masturbation. In inverts, perverts and mentally deficient individuals the prognosis is poor.

DISCUSSION.

Dr. Edward W. Holmes (Winona): I want to congratulate the doctor on his fine paper. I enjoyed it very much. He has covered the subject thoroughly and I feel there is nothing I can add.

In many cases impotence is not functional and I believe that it can be said that failure to relieve certain obscure sexual and urinary disorders can be traced directly to the verumontanum.

Although the function of the verumontanum is still obscure it can hardly be questioned that it is an important factor in the sex life of man.

In cases where the symptoms are referable to the posterior urethra and bladder neck and in which rectal massage, instillations, etc., do not give relief, a thorough urethroscopic study should be made for the trouble is likely to be found there.

A complete history is very important and often gives very valuable information, for in impotence due to pathology in the verumontanum usually the first symptoms are premature ejaculations or insufficient erections, whereas in functional impotence complete absence of erections is usually the first symptoms. An examination of the posterior urethra is the only reliable way to make a positive diagnosis and all gentleness and care should be used in this examination of trauma may give a false idea of pathology.

With reference to treatment, I think it is wise to try local applications of caustics first, but when these fail surgical diathermy should be tried. This form of treatment will also help certain cases of functional impotency.

Dr. Moseley (closing): I have nothing to add, gentlemen, whatsoever, except to thank Dr. Holmes very much for discussing this paper, and I thank you for listening.

THE PRACTICE OF NEURO-PSYCHIATRY IN GENERAL HOSPITALS.*

ISHAM KIMBELL, M. D.,
ALEXANDRIA, LA.

Wise leadership by pioneers in the field of psychiatry has for a number of years been endeavoring to point out the necessity for bringing about a closer relationship between psychiatry and general medicine. They have brought forces to bear against the tendency to isolate psychiatry and these forces operating in society, in the general medical profession, and in our own special, have had an influence toward the elimination of this isolation which too long characterized endeavor in the field of psychiatry.

Psychiatry is a division of medicine and although it deals largely with deviations in personality it is concerned with the entire organism in all of its aspects, physical, mental and social.

There has been some diversity of opinion and some recent discussion as to the limitation of the scope of neurology and psychiatry. The opinion that neurology and psychiatry are so closely related as to be inseparable has led to the widespread use of the term neuro-psychiatry. In institutions where the staff is composed of specialists who devote their entire time either to neurology or psychiatry, it has been suggested that an attempt be made to study and divide the clinical material into clinical neuro-pathological and clinical psycho-pathological groups. Every psychiatric case should be examined by the neurologist and internist and it has been contended by some that for practical purposes the larger institutions should have both neurologic and psychiatric clinics working hand in hand.

*Read before the Louisiana State Medical Society, New Orleans, April 14-16, 1931.

The large modern hospital has the equipment, personnel and space necessary for the study of organic neurology, endocrinology and organic psychiatric cases. Is it too much to hope that the day is not far distant when these hospitals will also set aside equipment, personnel, time and space to study behavior problems in children, child guidance, for the study and treatment of the psychoneuroses and for psychotherapy?

The hospitalization and treatment of the sick is one of the big problems confronting the American public today and a large part of this problem is the care of the mentally sick. Mental disease is widespread. There is an alarming increase in the number of patients in hospitals for nervous and mental diseases and it is apparent that if the admission of these patients continues at the present rate there will be in the year 1934 more than half a million inmates in institutions for the care of nervous and mental disorders.

Public health campaigns have done much to improve the efficiency of the American citizen and since it has been clearly demonstrated that public health and psychiatry have much in common it is not altogether improbable that we may some day find that a check has been placed on the ravages of mental diseases. It can be seen that the psychopathic department of a general hospital may play an important part in the general health of the community. In some localities the general hospital assumes the entire health program of a county, both physical and mental health, the social service department functioning as the medium between the patient, the community and the hospital, rendering effective service in assisting in the home treatment of patients by interpreting the patient, his environment, his reaction to his environment, and his financial condition to the medical staff so that it can comprehend the patient's true condition and advise the required treatment.

The growth of the American hospital and its expansion in a great field of usefulness has been amazing. It is true that much of this has been due to the demands of a so-called modern civilization has made upon the individual, but we are firmly convinced that the doctor is the most important factor, because of intelligent interpretation of medical facts to the public, and because of the correlation of scientific knowledge in its application to the needs of the individual by trained and experienced physicians who have realized their responsibilities and their opportunities.

The large modern general hospital should be equipped to give service to an entire community and should have facilities for the care and treatment of every type of case, taking into consideration, in so far as it is possible, the economic necessities of all classes.

Psychiatry has much to offer the general practitioner. It unquestionably has a splendid field of usefulness in the general hospital and the failure to take psychiatric conceptions into the field of general medicine undoubtedly impairs the efficiency of the physician. Mental factors in bodily disease often become a serious menace to the health of a patient, the physically sick frequently exhibit peculiar individual reactions because of some unknown condition which is the etiological factor in the production of these abnormal mechanisms. The recognition and proper handling of this factor is a most valuable aid in the successful treatment of the patient, which can be accomplished in many instances by employing psychiatric methods.

It is thought that the early objections to the introduction of psychiatry into our general hospitals were founded on misconceptions. While we admit that it is quite necessary and desirable at times to place mental patients in special hospitals this is also true of almost all of the specialties.

Psychiatry has made an important contribution to industry and its use in those

large general hospitals maintained under control of some of the large corporations undoubtedly would diminish the number of cases of compensation neurosis and perform valuable service in the study and treatment of industrial poisoning and in the detection of malingering. The psychiatrist is frequently consulted in the selection and in the management of industrial personnel giving valuable supervision and assistance to individuals during their periods of adjustment and re-adjustment in the industry.

Some of our medical schools do not have ready access to the larger hospitals for the care and treatment of nervous and mental disorders, although they do have an abundance of other clinical material in the larger general hospitals.

The addition of psychopathic departments in these general hospitals would give the medical student and the intern the benefit of some very essential training in an important branch of medicine. It would serve to point out the necessity for attention to the patient's personality and environment as an essential factor in high class medical and surgical work, offering valuable training for the psychologist, the social worker and the nurse.

The modern general hospital with its splendid laboratory equipment including all that is necessary for the study of gastro-intestinal changes, the blood, the cerebro-spinal fluid, bacteriology, metabolism, endocrine balance and others affords an opportunity for some research work in neurology and psychiatry.

The movement which has been responsible for the establishment of psychopathic departments in general hospitals has also been the dominant force in the increased emphasis which has been placed on the general medical and surgical work in our large mental hospitals.

One of the most attractive features of the psychopathic unit in a general hospital

is the ease with which the patient may be transferred from the general medical service to a ward for the care of mental patients. Mental symptoms occur or may appear coincidentally with pellagra, infections, cancer, decompensated organic heart disease, the anemias, kidney disease, diabetes, the industrial poisons, during the puerperium or post partum, in lung conditions, and in complications of surgical operations. These mental symptoms can be dealt with most expeditiously and efficiently, with less strain to the patient and with a minimum of disturbance when the general hospital is equipped with a psychopathic unit. We have frequently heard the parent or nearest relative state: "Oh, doctor! I am so thankful we do not have to send him to an insane hospital." To many of the laity, mental disorder or mental disease is coextensive with insanity involving isolation in a public institution. They are unable to understand that the term insanity "is not a medical concept at all, but that it is solely a legal and sociological concept" and should be applied only to those patients who have been declared insane by due process of law. In some instances it is practical to treat these mental symptoms on the ward, or when the patient is transferred temporarily to the psychopathic department, the case may be followed by his own physician or surgeon much to the satisfaction of the family.

The U. S. Veterans' Bureau in its efforts toward rehabilitation and in the care and treatment of the disabled veteran is making a splendid contribution to psychiatry. It has dealt with the problems of thousands of neuropsychiatric patients, has profited by this experience and is making a practical application of psychiatry in its general hospitals.

The modern general hospital as operated by the U. S. Veterans' Bureau, with the addition of a neuro-psychiatric service offers effective care for the nervous and mental patient. All diagnostic and treatment facilities, both in the matter of

personnel and equipment, which are an essential feature of these hospitals, are utilized in the interest of the mental and nervous patient. Introduction of this service into our general hospitals has involved few if any modifications in the internal organization of the hospital. The structural arrangement of the part of the hospital set aside for nervous and mental patients differs of course to some extent from the other departments but not as widely as current opinion would have it.

The wards in Alexandria, La., for the care of psychotic patients provide the usual hospital facilities with special facilities for hydro-therapy, occupational therapy and other features required for the successful treatment of the mentally sick.

During the first 14 months of the operation of the hospital we admitted 687 and discharged 568 neuro-psychiatric patients. Included in this number were: 100 psychoneurotics, 15 with endocrine dysfunction, 24 epileptics, 108 neurological cases, 112 psychotics and 107 without psychosis. The attached table shows the diagnoses and the number of patients in each group. During this period the neuropsychiatric department did 64 out-patient examinations and 638 intra-hospital consultations.

DISCHARGED PATIENTS.

Psychotics.	
Dementia præcox	51
Manic depressive	15
Paranoid state	1
Psychosis with mental deficiency	3
Dementia paralytica	17
Traumatic psychosis	2
Chorea, chr. progressive—deterioration psychosis	1
Psychosis Intox. drugs	3
Psychosis Intox. alcohol	4
Psychosis with pellagra	1
Psychosis with cerebral arteriosclerosis	1
Psychosis with multiple sclerosis	1
Psychosis with other diseases and conditions	12
Psychosis with C. P. I.	1
Psychosis epileptic deterioration	1
Psychosis undiagnosed	3

(discharged to custody of nearest relative prior to completion of period of observation).

Without Psychosis	
Constitutional psychopathic states	38
Mental deficiency	64
Chronic alcoholism	16
Drug addiction	4
Undetermined N. P. condition (patients) left hospital prior to completion of period of observation	10
Psychoneurotics.	
Hysteria	66
Neurasthenia	29
Anxiety neurosis	12
Epilepsy.	
Grand mal epilepsy	24
Endocrine Dysfunction.	
Hyperthyroidism	5
Hypothyroidism	3
Pituitary dysfunction	5
Polyglandular syndrome	2
Neurological Group.	
Encephalitis chr.	13
Multiple neuritis	15
Hemi-legia	15
Monoplegia	3
Peripheral neuritis	28
Facial paralysis	6
Brain tumor	2
Cerebro spinal syphilis	38
Musculo spiral paralysis	2
Brachial palsy	2
Spastic paraplegia	4
Muscular dystrophy	2
Spinal progressive muscular atrophy	5
Residuals of ant. poliomyelitis	3
Neuralgias	5
Sciatic neuritis	12
Paralysis-nerve	7
Tabes dorsalis	8
Syringomyelia	1
Chorea chronic progressive	2

In the psychotic group a large percentage of the admissions were acute cases. We have recently treated a number of acute schizophrenics returning them to their homes as soon as the acute process subsided. These patients were carried through to a conclusion of their illness with good insight and an entirely satisfactory adjustment. Where social service workers are available for follow up reports and when there are no environmental or other contraindications this is considered good practice since it has been shown that the nature of schizophrenia, a withdrawal from the world

of reality, tends to fix the individual into an institutionalized adjustment from which it is very difficult to release him.

We used malarial therapy in selected cases of dementia paralytica; 46 per cent of those treated were discharged and returned home mentally clear. In the neurological group we have seen a variety of most interesting clinical material, including those cases of multiple neuritis which resulted from Jamaica ginger poisoning, the progressive muscular atrophies and dystrophies; the multiplicity of lesions seen in chronic encephalitis and cerebro-spinal syphilis, the syndromes of extrapyramidal disease showing abnormal movements or disturbances of motility, and the endocrine dysfunction have been of special interest to the entire staff. The psychoneurotics remain a difficult group, it has been our observation here as well as elsewhere that they do not adapt themselves well to hospital routine, that they do not co-operate well in occupational-therapy and that prolonged hospitalization is not advisable.

The treatment of psychotic patients in our hospital at Alexandria consists largely in occupational therapy, physiotherapy and symptomatic medication. We believe that the most practical therapy is that form of treatment which is adaptable to groups of patients and the general principles for the application of this treatment differs to no material extent in a general hospital from that in a hospital devoted exclusively to the treatment of neuropsychiatric patients.

The neuro-psychiatric service here has been of benefit in frequent consultations with other members of the hospital staff and has served to influence other members of the staff to actively participate in the recognition of nervous and mental disorders. This has been accomplished by the presentation at staff meetings of carefully selected clinical material and by stating psychiatric facts and impressions in non-technical terms. The interest manifested in our specialty by the general medical

and surgical staff, their hearty cooperation and most valuable assistance is one of the important and characteristic features of the hospital work in Alexandria, one which affords us much pride, satisfaction and pleasure. This close relationship between psychiatry and general medicine is what the psychiatrist is striving for.

"The psychopathic department of a general hospital, adequately equipped with clinical and laboratory facilities, established on the same basis as a department devoted to any other medical specialty, is the visual embodiment of the modern attitude toward mental disorders; it brings this attitude home to layman and physician alike in the most direct and concrete way, eliminates the residuals of a mediaeval tradition and promotes in the community a wholesome and rational attitude toward mental disorders." (C. Macfie Campbell, *Mental Hygiene*, 14:884, 1929.)

DISCUSSION.

Dr. E. McC. Connely (New Orleans): In regard to Dr. Kimball's statement that the problem of mental diseases is becoming of more and more importance to the community, I concur thoroughly. Not only in the actual mental diseases, but we are coming to realize more and more that mental hygienic measures can and will help a great deal.

A psychopathic department in a general hospital is a tremendous asset not only to the hospital in the handling of its cases but a tremendous asset to the community. We have many transitory conditions coming up coincidentally with general medical and surgical cases. We have many temporary mental derangements which are amendable to treatment, and we have many psychoneurotics which if taken and properly handled in their incipency can be benefitted.

Nowhere can these cases be handled as effectively or as conveniently as in a hospital. Obviously, they are not cases for the psychopathic hospital, or rather for the insane asylum. They are all cases which should be given the benefit of medical care and the opportunity to get well without having the stigma of having been in an insane asylum attached to their names.

So often mental cases in a general hospital even though they may be transitory conditions, will disturb physically sick patients and seriously

affect their chances of recovery, whereas if there is a special department were they may be taken they will not disturb the other patients and both the physically sick patient and the mental case benefits as well as the doctor who is treating the case.

As I said before, so many mental conditions are transitory and the patients are entitled to a period of observation, to a period of treatment before being consigned to a state hospital, or being declared officially insane by the law. I personally think the time is coming when the law will require such a period of observation as only fair not only because we all of us make mistakes, sometimes even in the most obvious cases, but because a great many cases are not obvious, and to take these people, send them to a state hospital and declare them officially insane, only to find out three or four weeks later that they are getting well and going to recover is a serious injustice to them and to their families, for unfortunately there is still quite a stigma attached in the lay mind to the term "insanity" and a man who has been in an insane asylum has difficulty finding work when he gets out, and the record will follow him throughout life and will be imprinted on his children. No matter what else may happen to him or what may happen to his children, it will almost always crop up.

Of course, throwing mental cases indiscriminately into the wards of the general hospital is not a desirable thing. It isn't a desirable thing for the mental case, nor is it a desirable thing for the hospital. We should have special departments. And not only will the patients benefit but the nurses and attendants in a hospital acquire knowledge and training in handling these cases which is mighty useful lots of times, and in no other way will they acquire it except by dealing with the cases.

Dr. C. S. Holbrook (New Orleans): I am very appreciative of Dr. Kimball's paper in that it brings before this group a subject that is very close to my heart; that is, the practice of neuropsychiatry in a general hospital.

I would like to speak first of the general clinic connected with a hospital. For eleven or twelve years I have been connected with one of the private hospitals here in this city that has a very large out-patient department, and I have to do with the neurological division of the clinic.

We find that over half of our cases come directly from some other division of the clinic. The patients have sought help first in the surgical or gastro-enterological clinic or the orthopedic clinic or the general medical clinic. Finally their particular problem is found to be a neurological

or psychiatric problem and they are referred to the proper clinic.

I try to inculcate the idea into the medical students of getting a psychiatric viewpoint of medicine. By that I mean not considering that a man is made up of certain organs, as a heart, a stomach, and lungs, any of which may or may not be diseased, but to get the conception of an individual in his entirety. All too frequently a patient will come to a department complaining, say, of his heart. Nothing is found upon careful examination of that organ, and the doctor is inclined to say, "There is nothing wrong with the patient." However, the heart symptom is only the reflection of his inability to adjust himself, and the conception that there is some psychiatric problem, some complex, that is causing this patient's symptoms seldom enters into the discussion. Such a patient is often told that his trouble is imaginary, or that he is suffering from imagination. In this way he loses confidence in the physician and he also becomes more thoroughly neurotic than he was to begin with.

The psychiatrist can offer a great deal of help in just such cases, and it is to be hoped that this divisions will be used more thoroughly in the general hospital. There is no more appreciative patient than the psychoneurotic that has been given appropriate treatment. The trend of our time is to give greater and greater consideration to the psychiatric aspect of people who do not present definite organic lesions.

Dr. Walter J. Otis (New Orleans): General medicine is indebted to neuropsychiatry for the awakening of interest in the treatment of these specialized cases, especially so since the World War when those of us who were assigned to the different units found it necessary to place apart in separate groups, buildings for their care and treatment.

The same cannot be said, alas, of the general hospitals concerning their separate and special care where pavilions completely appointed should be installed. Too little attention is paid from the curriculum standpoint in Medical Colleges to this important subject. The same may be stated of training schools and the experience of nurses with this class of patients.

It is to be hoped that in the near future that these properly equipped and protected pavilions will be installed in general hospitals where the transitory deliria, intercurrent confusional toxemias and mild episodic, psychotic and psychoneurotic outbursts may be cared for in an atmosphere properly suited, thereby preventing the stigmata and its consequences attached to the placing of

this type of case in a strictly mental hospital. By doing this, will be spared much worry and concern and mental anxiety on the part of relatives and friends and will add to a more healthy and prompt recovery to the patient.

Dr. H. R. Unsworth (New Orleans): The practicability of handling psychiatric problems in a general hospital, is a difficult one. There are certain types of cases, particularly the mild psychoses of a toxic basis, which might be handled quite satisfactorily. This is especially true in the rapidly recovering toxic states. I think, however, the doctors discussing this problem have overlooked the importance of recreation and spacious ground for the essential psychotic. The necessity of giving as little chemical therapy as possible is quite in keeping with the psychiatric hospitals, but becomes a real detriment through necessity, to those patients whose behavior has to be controlled for the consideration of those in their immediate environment. I would appeal, personally, for a better understanding of psychopathic hospitals. It is understood that a modern mental hospital is equipped and capable of handling medical problems which might be associated with the various psychoses.

I have enjoyed the doctor's paper and wish to thank him for the privilege of entering into the discussion.

Dr. Isham Kimbell (closing): The state of Louisiana is to be very much congratulated on the fact that they do have a number of very splendidly trained men in neurology and psychiatry. My association with these gentlemen from time to time shows me that they are doing a splendid work. They are not selfish, not merely working for their own selfish end. They are really trying to do something worth while in this great field of neurology and psychiatry. They are the leaders.

But if we accomplish something very much worth while, if we continue our good work it must come from the general practitioner of medicine to get behind these men and hold up their hands. Modern medicine is very much concerned in neuropsychiatry, nervous disorders and the treatment of nervous disorders. So is public health. We can't get away from it.

The old idea of the treatment of the mental patient, his capture and control, has passed.

I want to thank the chairman of this section for his invitation to address this body, and I want to thank the gentlemen very much for their kind and able discussion of my paper.

AM I MY BROTHER'S KEEPER?*

GLENN J. SMITH, M. D.,
JACKSON, LA.

When extended the courtesy by the chairman of this department to prepare a paper to read before this assembly, it was essential that I expedite the title, and having recently become enthused over the discussion of articles pertaining to our subject with nearby physicians I hastened the title to him not giving adequate thought to the difficulty of writing the paper to conform to the title. But, as I promised Dr. Sandige, I shall endeavor to present for your consideration some problems that frequently arise between the individual physician or organized medicine and various forms of public health agencies and public endeavor. Both or all are with the ultimate end to help our brother.

To the majority of the public, nothing is so personal as medicine. The lawyer and the theologian may speak of his vocation with a chance that his hearers will accept his words impersonally. But when the doctor speaks his hearers will apply his assertions to themselves. If his address is about a disease, doubts and fears assail them. If he describes appendicitis, duodenal ulcer, or uterine cancer, his audience will imagine the description suits their case. We all know to what extreme doubts and fears about disease can go. But despite the public's habit of applying personally anything said about disease, medicine in its wider reaches, transcends the personal by far. At its broadest, it becomes a branch of statesmanship. In the not far past statesmanship was great when medicine was crude and little thought of.

Countries expended much money, time, and thought on statesmanship and government; but very little on medicine. Some great laws and governmental documents have withstood the attacks of modern men

*Read before the Louisiana State Medical Society, New Orleans, April 14-16, 1931.

and countries and are yet standing as firm as the Rock of Gibraltar. I can but call your attention to the great document, the Constitution of our United States, with on'y 18 subsequent amendments, and ask you what was advocated in medicine at that time that now prevails?

Until the last part of the nineteenth century statesmanship thought in terms of individuals. The fight was for freedom of conscience, equal opportunities, self-government. During the same period the medical man was concerned with people so sick and engrossed in his own narrow sphere that he was detached for a time from the stream of life and from association with this cloistered class, he himself, became cloistered in thought. The sick themselves regarded their illness as a fate sent by Providence which could not be avoided. Then came the wider appreciation of the importance of preventive medicine, an increase and deeper study of ill health in its early beginnings, its causes, associating it all with peoples' habits and mode of living and surroundings, then diagnosis increased in range and accuracy and treatment more precise and satisfactory. Accompanying these developments, statesmanship also made advances.

Having achieved liberty and equality for the masses, it began to assume a parental function toward the individual. Being ever so willing to extend a helping hand it could only direct its endeavors by the advice and cooperation of the medical men, depending solely upon them for proper and scientific advice. In the beginning of this era, the medical men in their cloistered sphere began to realize or foresee an economic disturbance in his profession even greater than the economic disturbance in industry and began to believe and in many instances, publicly blamed health organizations and certain departments of government for their public health activities on the ground that it interfered with the private practice of medicine and have sought in various

ways to apply remedies which have been unsuccessful.

The medical profession in many instances, failed to realize that medical research and discoveries, changed social conditions, the public character that medicine has come to have and the public knowledge of what can be done to limit illness, are the real causes of public health activities.

Times and conditions are so rapidly changing that these health activities are not limited to the general public, but civic organizations, industries, and various other agencies are at work, all forgetting or ignoring the medical man's economic status, but solely to the limitation of disease. And in their endeavors based upon general principles originally derived from medical men, they frequently ignore local physicians and causes them to believe they are being dealt with unfairly.

It is the writer's opinion that organized medicine has not undertaken an impartial appraisal of its own organization to see if its public medical relationships are such as to make itself most efficient in its public service responsibilities. I am afraid that we are unaware of the possibilities of the danger that confronts organized medicine of coming to have an unsatisfactory position in public opinion. Beware that it must go through the throes of an adjustment to new things and occupy a new relationship that it must keep this relationship adjusted to advancing social condition and go along with the irresistible public opinion.

I hear you say, "No, our researches and scientific medical discoveries, our fairness and unselfishness of the past, our very dignified profession forbids us to any such compromise."

But you must realize that our greatest strides have been in the past few decades and only after this same public opinion who interested philanthropists to come to our assistance in making much of this

progress. That same force is sweeping over the country today and will carry us to State medicine without our advice unless we heed the changing of times and realize the proper course to pursue, that which to limit illness, and there is no medium ground for us. But buckle on your armor, get together your wits and come into your own and as you should, direct this irresistible force. I think here you will agree with me that ours is essentially a dual occupation. One is private, our relationship to our patient, practice of medicine in all of its branches or fields. Scientifically or in any other way, there is no problem here. Our future in this respect is secure. Our other dual responsibility is civic and relates to our obligation to take part in public medical service and to give guidance to activities of other organizations, trying honestly and conscientiously to meet certain unsolved health problems which unquestionably arise from an awakened public conscience and are due to the revelations of our own medical research, and do not contend that whatever success is achieved in this line, that our private economic disturbance will be its penalty.

We must here bear in mind that: "We are our brother's keeper," and while it may appear for the moment that these public health agencies and endeavors are detrimental to our economic welfare; their activities and demand inflict upon our pride and dignity, their very existence is due to this public awakening of consciousness of its duty to its fellowman. We must realize that this progress depends upon our co-operation and that in justice to ourselves and our neighbor we must throw off our cloistered robe, familiarize ourselves with their various functioning and assume the role of authority and direct them to the betterment of all concerned. Various state medical societies are recognizing this influence and steps are being taken to direct it. In the State of New York a Public Relations Committee has been appointed and is now gloriously and effectively func-

tioning. But it is not my purpose to go into the details of how this cooperative movement can be accomplished, but to try to impress upon you that it should be done, and I dare say when organized medicine as a whole, is brought to the full realization of the necessity of this cooperation and directorship and begins functioning, it will soon realize that the profession of medicine is responsible for the guidance of all efforts to advance preventive medicine and that the profession should be the major factor in proposal and execution of all endeavor for the solution of all the great problems of medical care.

Now while this civic movement spurred on by the public consciousness of its duties toward medical care, is solving its problems and spreading its propaganda for education of the public, organized medicine should not sit dormant, but exercise some of its faculties and rights toward educating the public to its need for the medical man. We frequently see organized labor go on strikes for what it thinks is a living wage and the radical ones threaten death to them who would interfere, yet they will draw up an ironclad contract to have the physician to pay professional calls at fifty cents each. The great Red Cross will feed and maintain thousands of persons through drouth, flood and earthquakes and expect the doctor out of the bountifulness of his heart and charity to supply the unfortunates medical care without compensation. State hospitals employ physicians at a price lower than they pay some of the semi-skilled employees. And such oversights of injustice will continue until organized medicine steps in and speaks for its rights.

There is no such thing as sanitary engineers. Were it not for the scientific medical man the engineer would not know why he was draining the dismal swamps and doing thus and so. There are thousands of such illustrations and as far as the medical men are concerned I am afraid we are prone to sleep on our rights. But in conclusion, it is my firm belief that there is

yet a great awakening for organized medicine and it will come through the realization of the necessity of this cooperative spirit. That with all the modern changes, this public health force, the medical man, organized medicine, stands preeminently aloft and secure, and is now and will be forevermore, recognized as and appreciated for its authority and directorship of all matters pertaining to limiting disease and longevity of life and we shall believe: "That we are our brother's keeper."

DISCUSSION.

Dr. C. W. Struger (New Orleans): Dr. Smith's excellent paper sounds for us a note of warning! I observe that its title is expressed in the interrogative mood. I am wondering how long our medical fraternity may be permitted to use the question mark, for it seems to me that "brother" is stepping in, in an active and positive manner, to have a word to say about that himself. . . . This is the crux of the situation, and organized medicine must be on its toes to mold the answer.

Modern medicine is preventive and curative. The physician is essential and is an important factor in both. It is this first category, the preventive phase of medicine, that our physicians should face, with a conviction of its vital importance, with a knowledge that it is here to stay and with an assurance that we are capable of molding and advancing it to the best end for the public and for the practicing physician.

Medicine should direct its own future. It should accept the responsibility of steering its own craft; and, when its ship sets sail upon unfamiliar and untraversed seas, the pilot wheel should not be relinquished to other hands.

Preventive medicine is basically very sound economics. It appeals tremendously to our "brother" without the profession. He is no longer ignorant of medical things, especially so in diseases and conditions that affect his daily life, his potential power of producing and maintaining a livelihood. Efficiency experts now seriously consider the question of time losses in sickness, of diminished labor units due to disease, of physical deterioration resulting from sickness. These are all calculated to a nicety in a dollar-and-cents value, and good business requires that such conditions be corrected. As corporations realize that they may save manpower, so, also, does our "brother" realize that he may be protected, his children may be rendered immune, his surroundings innocuous, and his span of life considerably lengthened. All of this is now becoming more and more a matter of general

knowledge; and, with this knowledge, comes the demand for this phase of medicine.

The situation, therefore, is fairly up to us; we may accept it, mold it and control it; or, we may fail; but this great movement will by no means be retarded; for, by other means and through other agencies, it will carry on! Our "brother" demands it—and he will not suffer disappointment!

GASTRO-INTESTINAL DISTURBANCES IN INFANTS CAUSED FROM MIDDLE EAR AND MASTOID DISEASES.*

ROSS E. ANDERSON, M. D.,

JACKSON, MISS.

Otitis media and gastro-intestinal disturbances in the same infant at the same time have been recognized by both pediatricians and otologists for a long time. This paper has to deal with gastro-intestinal disturbances which are caused from infection in the middle ear and mastoid. There is nothing original or new in this paper. It has been written largely from the literature which I have read on this and kindred subjects. Otitis media is also a complication of gastro-intestinal disturbances, because of weakened vitality of the infant.

The history of these cases consists of failure to gain weight normally, with more or less serious gastro-intestinal symptoms from time to time, and in severe cases, marked loss of weight, vomiting, diarrhea, anhydremia, extreme toxicity and a septic temperature which often goes as high as 104 or 105 degrees. These symptoms do not yield to any regulation feeding, nor are they due to enteric infection. Other possible causes are eliminated by a careful pediatric examination.

The first to suggest a relationship between the two was Hartmann in 1898. Hartmann suggested that otitis media was

*Read before the Section on Eye, Ear, Nose and Throat at the Sixty-fourth Annual Session of the Mississippi State Medical Association, Jackson, May 13, 1931.

probably the cause of these severe gastro-intestinal disturbances and found that drainage by myringotomy caused improvement in these gastro-intestinal symptoms.

In 1904, Preysing stated that he believed these severe gastro-intestinal symptoms were due to toxic substances which had found their way into the blood and lymph channels from empyema of the middle ear.

In 1921, Maurice Renaud of Paris reported that he had performed autopsies on seventy infants who had died of infantile diarrhea and had found pus in the mastoid antra in every case. In 30 cases the ear infection had been noted before death, but in the other 40 it had been overlooked. After this he operated on the mastoid antra of 10 such cases. Temporary improvement was noticed in all of them, but eventually nine of them died and only one survived. He felt, however, that if the operations had been performed earlier the death rate would have been lower.

Later Dean and Byfield called attention to the presence of pus not only in the mastoid antra, but also in the nasal sinuses of children dying of gastro-enteritis.

In 1923, the staff of the St. Louis Children's Hospital presented a similar report and in 1925 a further report of 15 infants under two years of age with gastro-intestinal symptoms upon whom they had done mastoid operations with eight recoveries and seven deaths.

Later still there were reported 30 cases of marked gastro-enteritis upon whom they had opened the mastoid antra during 1926 and 1927, with 22 recoveries and eight deaths.

In 1930, Carmack reported 28 cases of infants under two years of age who had mastoidectomies performed because of gastro-intestinal disturbances. The symptoms of these varied from inability to take food, intermittent vomiting and loss of weight, to violent diarrhea with anhydremia and temperature of 101 to 105 degrees with ex-

treme toxemia. Twenty of these cases recovered and eight died.

The diagnosis of these cases requires the closest co-operation between the pediatrician, the otologist and the roentgenologist.

A roentgen ray examination should be made in every case. The plates are usually difficult to interpret and may be misleading. The value of the roentgen ray in these cases depends upon obtaining as perfect a mental image as possible of the infant mastoid and then comparing the roentgen ray plate with it. Cell formation has been noted as early as one year both by roentgen ray and at operation. I have been told by some good operators that they had seen cell formation earlier than one year. When there is evidence of pathology by roentgen ray, we have two rather distinct types. First is the earlier type where inflammatory swelling and pus fills the cavity. In this type we get a generalized increase in density. In the cases of longer standing, when there has been suppuration with necrosis of the mastoid contents and drainage through the ear, the cavity may be quite transparent to the roentgen ray, with a bandlike area of unusual density surrounding it.

I shall not go into detail about the examination of the drumhead except to say that every case should have a careful examination by an otologist. In some of these cases the drums will be found to be red and bulging. This makes the diagnosis easy. Some particular portion of the drum may be bulging. There may be sagging of the posterior superior canal wall. Another type of drum that is often seen is the drum that is dull, dirty gray, lustreless in appearance and not bulging. This seems to be but part of the anhydremic picture. In all cases of doubt I believe that myringotomy should be performed anyway. It has been stated on good authority that drums have been opened and a dry middle ear found and pus found in the mastoid antra at autopsy.

With regard to the pathology present in these cases I will state that in 1928 McMahon reported pathological finding in 39 cases. Mastoidectomies had been performed on each case. Bone was removed, pathologic tissue and secretions were exenterated and drainage through the middle ear established. He stated that bony necrosis was frequently found. The main change occurred in the mucosa of the antrum. The mucosa showed edema with slight fibrosis in the more recent cases. In the cases of longer standing fibrosis was more marked and edema slight. Pus was found in the antrum in every case. Sometimes infected granulations were found. Various organisms were found to be causative factors. Of all the organisms found the streptococcus hemolyticus was possibly the most frequent and gave rise to the most alarming symptoms. Marriott states that no characteristic pathology has been found in the gastro-intestinal tract of infants succumbing to this condition. He claims that this would indicate that other factors other than gastro-intestinal damage were operative. He further claims in speaking of "food diarrhea," "summer diarrhea," "cholera infantum," etc., that there are certain features common to all diarrheas resulting from the causes mentioned. He says that in all there is excessive bacterial activity in the upper part of the gastro-intestinal tract; that normally conditions are such in the stomach and upper part of the small intestine that bacterial growth is inhibited, even when fair numbers of organisms are introduced with the food, so that digestion and absorption proceed uninterfered with by bacterial action and is fairly complete before the intestinal contents reach the colon. Marriott further states that any infection, enteral or parenteral, which causes fever, predisposes to the development of an abnormal bacterial flora in the upper part of the intestinal tract and consequently to diarrhea. Marriott says further, "we have spoken of the type of diarrhea which is initiated as the

result of parenteral infection, especially of the rhinopharynx, middle ear and mastoids, and have pointed out the fact that these infections act by bringing about changes in the gastro-intestinal tract which are similar to those caused by other factors, such as food."

In the last three years I have had occasion to see a number of cases of infants with gastro-intestinal disturbances due to middle ear infections. These cases were usually referred to me by some practitioner for an examination of the ears. In all cases myringotomy was performed, the infant received appropriate pediatric treatment, and all recovered. Pediatric treatment, before myringotomy was performed, had been futile. It was not necessary to perform mastoidectomy in a single case. It may be that I did not see enough cases. Pediatric treatment in these cases is futile, unless the ear condition is treated first. I believe in conservative treatment. I believe that myringotomy should be performed to see what can be accomplished, rather than performing mastoidectomy on every case in the very beginning. Of course, in those cases with alarming symptoms, where to wait would be fatal, mastoidectomy should be performed without delay. In all of the literature that I have read on this subject one thing has been forcibly impressed on me—the high mortality rate of the infants who had mastoidectomies. I doubt seriously that the mortality rate would have been any higher, if no mastoidectomies had been performed at all. When it is necessary to perform mastoidectomy, it should be done quickly and under local anesthesia. All that is necessary is a simple antrotomy. Some operators doubt the advisability of much curetting. Drainage is the chief object of the operation. Louis H. Schwartz of New York makes this observation, "In infants up to the age of two years, operations on the mastoid should practically never be performed."

Isidore Friesner and Samuel Rosen, of New York, have described mastoid punc-

ture in infants as a new method of handling these cases. Mastoid puncture serves a dual purpose. After the needle enters the antrum, pus can be withdrawn and sent to the laboratory for examination. Then the antrum can be washed out. They claim that the procedure is harmless, if carried out properly, and may simplify the treatment of these cases. I simply mention this for your consideration, as I have had no experience with it.

In conclusion, let me say that I believe that any infant suffering from gastro-intestinal disturbances, who does not respond to the usual pediatric treatment, should have a careful examination of the ears by an otologist. In all of these cases, as I have previously stated, there should be the closest co-operation between the pediatrician, the otologist, and the roentgenologist.

REFERENCES.

- McMahon, B. J.: The pathology of mastoiditis in infants. *Archiv. of Otolar.* 7, 1928.
- Marriott, W. McK.: Enteral and parenteral factors in the causation of diarrhea. *South. Met. Jour.* 24, 1931.
- Carmack, J. W.: Mastoiditis with gastro-intestinal disturbances in infants. *Annals of Otol. Rhinol. & Laryngol.* 39, 1930.
- Lyman, H. W.: Infantile mastoiditis with gastro-intestinal symptoms. *Archiv. of Otolar.* 6, 1927.
- Alden, A. M.: Gastro-intestinal disturbances in infants as a result of streptococcus infection in the ears. *South. Med. Jour.* 19, 1926.
- Alden, A. M. & Lyman, H. W.: Gastro-intestinal disturbances in infants as a result of obscure infection in the mastoid. Reprint from the *Laryngoscope*, St. Louis, 1926.
- Marriott, W. McK.: Pediatric aspects of otolaryngology. Reprint from the *Transactions of 3rd annual meeting of the Amer. Lar. Rhin. and Otol. Soc., Inc.*, 1927.
- Marriott, W. McK.: The remote results of certain focal infections occurring during infancy and childhood. *South. Med. Jour.* 19, 1926.
- Marriott, W. McK.: The relationship of certain focal infections to general diseases in infants and young children. Read before the American College of Physicians, Cleveland, Ohio, Feb. 24, 1927.
- Schwartz, Louis H.: Is mastoidectomy necessary in young children? *Archiv. of Otolar.* 6, 1927.
- Friesnes, I. & Rosen, S.: Mastoid puncture in infants. *Archiv. of Otolar.* 7, 1928.

DISCUSSION

Dr. Edley H. Jones, (Vicksburg): This paper has been unusually interesting to me. The Staff of the St. Louis Children's Hospital have been pioneers in this field. Alden and Lyman presented their first paper, reporting operative results, in 1925 and I later had the pleasure of visiting their clinic and seeing their work. The information I possess on this subject is limited almost entirely to the cases I saw there and to reports which have been issued by their staff. I became so keenly interested in the subject that I do not believe I could have overlooked a case but, like essayist, I have yet to see one that required mastoid operation. Some years ago a paper was published, reporting the incidence of mastoiditis in various sections of the country. Since being assigned to discuss this subject I have diligently searched the literature for it, without avail. As I recall, the paper stated that only six per cent of admissions to otolaryngologic services in the lower Mississippi Valley were mastoid cases, while it ran as high as nine per cent in the upper valley and 12 per cent on the upper east coast. If these figures are correct, they may explain why we see so few cases; mastoid infection simply occurs less frequently in our locality.

The essayist remarked that in such cases the drum may not be red or bulging; it may be a dull grey, or even greyish-yellow, and lustreless; but he did not give the anatomic reasons therefor. In the infant, the eustachian canal is relatively shorter, more horizontal and larger in lumen than that of the adult. These factors would tend to facilitate drainage from the middle ear via the eustachian tube; in fact, Alden has reported observation, by means of the nasopharyngoscope, of pus draining from the pharyngeal orifice of the eustachian canal in babies whose drums were normal in appearance; incision revealed free pus in the middle ear.

While discussing anatomy, it should be mentioned that in infants the attic and aditus are more or less completely filled with embryonal mucous membrane. On infection this primitive mucosa swells rapidly, usually walling off the mastoid antrum from the middle ear and interfering with drainage. This explains why attic suppurations are more common in infants than in adults.

There are a few points about diagnosis I would like to discuss. Satisfactory examination can not well be made by reflected light. An electric otoscope is far superior, and the stronger the light, the better. Any sagging of the superior or post-superior walls is considered pathognomonic. It is my impression that roentgen-ray examinations of infant mastoids are of little value; I am certain

they are of little value to me. However, I have not found any reference in the literature to transilluminating the mastoid antrum; this procedure has been of positive benefit to me and I would consider it more reliable than the roentgen-ray, in infants.

I like the essayist's use of the word "myringotomy." Paracentesis, or mere puncture, should never be done in this type of case; the drum should be freely incised. Recalling that the aditus is filled with embryonal mucous membrane, the best method is to start the incision below the long process and bring it upward, behind the process, incising the annulus. There are no important structures in this locality and incising the membrane of the aditus may result in freer drainage. The patient should be anesthetized; I prefer nitrous oxide gas.

Kopetzky recognizes two general types of mastoid infection—the coalescent type and the hemorrhagic type. Each has its analogue in the infant. The coalescent type is easily recognized because it presents a typical picture. We have all seen this type of case. It is the hemorrhagic type that presents the syndrome described by the essayist, which is so difficult to diagnose and which is so toxic. It appears that the infecting organism may be the determining factor. A report issued in 1927 stated that during the previous six years at the Children's Hospital 35 patients of the coalescent type had come to operation and the majority of the cultures showed a staphylococcus or non-hemolytic streptococcus; they reported operations in 32 cases of the hemorrhagic type and almost without exceptions, culture showed hemolytic streptococcus.

Like the essayist, all of my cases have responded to myringotomy, nasal and pediatric treatment. Should operation be necessary, mastoidotomy and not mastoidectomy, should be performed and it should be done without delay. Pre-operatively, an infusion or transfusion should be given. Operation should be done under local anesthesia, and the infant should be kept warm with external heat, to decrease shock. The wound should not be closed by suture; a drain should be inserted and the wound allowed to heal by granulation. It should be dressed daily.

The essayist states that he doubts if the mortality would have been higher in these cases if operation had not been performed. I differ with his opinion. It must be recalled that mastoidotomy was considered only after all other measures were found to be of no avail, and autopsy had repeatedly shown pus in the mastoid antrum. Alden has issued three reports of cases operated upon by the Staff of the St. Louis Children's

Hospital. At first it was done only as a last resort, but of the first 17 cases operated upon, nine recovered. While this is high mortality rate, it was so much lower than in unoperated cases that they felt more confidence in the procedure. Of the next nine cases that were operated upon, six recovered. In the next forty cases, thirty-five recovered. These reports indicate that delay in diagnosis and operation are more responsible for the high mortality rate.

In conclusion I would like to stress the essayist's remarks regarding co-operation of the pediatrician and the otologist. The pediatrician needs our support and we would certainly be helpless without his aid.

Dr. W. L. Hughes (Jackson): This is a very interesting subject, but in a few points I must differ from the essayist. Dr. Marriott read a paper at a meeting of the Southern Medical Association several years ago in Atlanta in which mastoidectomy was advocated in practically all cases of diarrhea, but since then there has been a trend back to more conservative practices, and now operation is the exception rather than the rule.

Personally, I have never seen pus in the mastoid where there had been no otitis media. I have read these reports in the literature, chiefly autopsy reports, and I wonder if most of these were not disintegration changes following death rather than frank pus. The so-called primary mastoiditis is, I think, a myth and I will have to see one before I am convinced.

The statistics presented show about the same mortality in the operated and unoperated cases, and I am inclined to the opinion that the operated cases that recovered, recovered in spite of the operation, rather than as a result. Of course where there is a frank mastoiditis concurrent with the diarrhea, there is no question as to the procedure to be followed, but go slow in those cases where there is merely a running ear with no other symptoms of ear disease.

Dr. George E. Adkins (Jackson): Dr. Anderson has presented a very interesting subject, one in which a member of this section undoubtedly must have had broad experience and certainly must have come in close relation with the pediatrician.

The title of the paper is, primarily, "Gastro-Intestinal Disturbances Caused from Middle Ear and Mastoid Infections." To this I beg to differ with the essayist for it has been my experience and opinion that the gastro-intestinal condition, undoubtedly, produces the middle ear complications, perhaps, just as we find it following the

common cold, pneumonia, whooping cough and those things that affect the respiratory tract. We find those things occurring any where from the seventh to the fourteenth day and it is my opinion that middle ear infections show up from the seventh to the fourteenth day after a colitis has manifested itself. As I said before, our observation of these cases would run into the many hundreds in which we have had to do a simple paracentesis and it has been my misfortune to be called upon by the pediatrician to open five of these little mastoids. The first one done in this town was done by my friend, Dr. Dobson. He was called by a pediatrician with whom I have been very closely associated and who insisted very earnestly that the mastoid be opened and when this mastoid was opened pus was found in both antrums. I understand that this child showed marked improvement for the next forty-eight hours but was eventually lost. This probably stimulated me and the next time I was asked to open these mastoids I consented and in each instance pus has been found in the mastoid.

With reference to my friend, Dr. Hughes, in regard to this being a post-mortem change, let me say that these were ante-mortem operations and in at least one of these cases there was no evidence of drum changes although the drum had been incised and followed by no discharge but the mastoid antrum also contained free pus.

With reference to roentgen-ray examination, I should like to be recorded as saying that it is an absolute useless procedure in middle ear and mastoid complications of the infant. There is not enough calcium salts in the bone at this age to cast a shadow and pus does not show by roentgen-ray.

Dr. H. R. Fairfax (Brookhaven): I have a case of this kind. It is a child who has trouble with its bowels and its ear is still draining. The child is eight months old. I performed a mastoidotomy instead of a mastoidectomy. The diarrhea cleared up all right soon after, but the ear is still discharging slightly. I am very glad to have heard this interesting paper.

Dr. G. C. Jarratt (Vicksburg): I agree with the essayist in the conservative treatment of mastoids of the type under discussion. A few

years ago if one were to go into the infant wards of a large children's hospital he would think he were in an Arab camp for nearly all had mastoid dressings. Why do we not find the same true today? Is it that we are not seeing as many cases as then, or have we become more conservative in the treatment?

The essayist states in his paper that some start with a diarrhea and vomiting from other causes and due to weakened condition develop an otitis and mastoid involvement. I rather think this more of a mechanical condition than lowered resistance and the infection is carried to ear from vomitus and no doubt this causes a so-called vicious circle and requires interference.

I hope none of us go away with the idea that all diarrheas of infants are due to middle ear and mastoid involvement for we still have our enteral, chemical, etc., but rather keep in mind that some diarrheas are due to middle ear and mastoid disease and look for it as a cause when diarrhea is present.

Regarding the sagging of the posterior superior canal wall in infants with mastoid involvement, most of the cases reported have been in infants around five months of age when the bony wall is not developed, and, as I see it, all the canal walls are sagging both in health and illness and the sign has not proven of any benefit to me. As for the roentgen-ray, I feel it is of no value in the so-called occult mastoid involvement.

Dr. Edley H. Jones (Vicksburg): Mr. Chairman, I arise to a point of order. The title of Doctor Anderson's paper is "Gastro-Intestinal Disturbances in Infants Caused from Middle Ear and Mastoid Diseases." There has been more discussion on diarrhea than on the subject of the paper. I think the discussion should be limited to the subject.

Dr. Ross E. Anderson (closing): I realized that many would disagree with me as this is a very hard subject, and I appreciate all the discussions. But as I stated in the first paragraph of this paper, this subject deals with gastro-intestinal disturbances in infants caused by infections in the middle ear and mastoid, and not the ear infections that occur as a complication of gastro-intestinal disturbances.

GASTRO-INTESTINAL MANIFESTATIONS IN ALLERGY.*

B. G. EFRON, M. D.,†

NEW ORLEANS.

Since the use of sera and antitoxins has become so universal, many unfavorable reactions, such as prostrations, fever, urticaria, and in some instances, death, have been recorded. These accidents stimulated search for the causes of these phenomena, and this search extended to the study of the so-called natural sensitivities in man, particularly hay fever and asthma. More recently other clinical syndromes, specifically those occurring in the digestive tract, the nervous system, and the skin, have come under consideration.

Lack of time does not permit me to go into the detail of the development of this interesting study. Suffice it to say that multitudinous experiments, supported by numerous careful clinical observations, have established the fact that there are individuals who react unfavorably to substances which are innocuous to the great majority of the race. To this new pathologic entity the term "Allergy" has been applied.

Here I shall discuss briefly only a limited aspect of allergy. My intention is to bring to your attention a subject not fully appreciated by the average practitioner.

Allergic symptoms can be caused by a great variety of substances. The gastrointestinal tract is affected by foods only. All foods, except sugar and water, can cause symptoms. However, certain foods have been more frequently identified as etiologic factors. Eggs, wheat, and milk particularly, are the more common offenders. In children, eggs and milk, particularly are responsible for symptoms, while in adults wheat is more often responsible.

The symptomatology varies widely. Pain, nausea, vomiting, retching, belching, distention, flatulence, gastric discomfort, constipation, and diarrhea may be present. The many intra-abdominal conditions may be simulated, varying from those of an acute abdominal catastrophe to those of vague gastrointestinal complaints. There are no pathomonomic symptoms or signs.

Clinically, these gastrointestinal symptoms may be grouped as follows:

1. Occurring without other manifestations of allergy.
2. Occurring with other manifestations of allergy, viz: asthma, hay fever, etc.

Symptoms may be quite different in different patients. In some cases, only the first group is manifested, in others, respiratory or other symptoms may be associated with the digestive disturbance.

The severe attacks are quite dramatic. The symptoms may begin any time from a few minutes to several hours following the ingestion of the offending food. Vomiting is usually very prominent. Pain is often present, varying in intensity from uncomfortable spasms to agony. Diarrhea may occur; on the other hand, severe obstipation may be present. Prostration and other signs of shock may be severe. Abdominal tenderness may be local or generalized. I shall quote an example of this severe type.

A young woman was subject to periodic attacks which were suspected of being acute intestinal obstruction. She was twice admitted to the hospital for observation and possible surgical intervention. Each time recovery followed the usual non-operative procedures, so that operation was postponed. Dr. J. D. Rives suspected the case to be one due to allergy, and referred the patient to me for observation. Skin tests gave positive reactions to several foods, among them, wheat. Clinical trial demonstrated that wheat was the only food that caused symptoms. Several times, in the past two years, she has tried to eat wheat, but symptoms occurred each time.

* Read before the Louisiana State Medical Society, New Orleans, April 14-16, 1931.

† From the Allergy clinic of Touro Infirmary, and Hay Fever Clinic of the Senses Hospital.

As long as she abstains from wheat, she has no symptoms. It is almost needless to state that the patient was investigated from all other possible angles.

Mild attacks are much more frequent. Very often patients make their own diagnosis. While investigating histories in cases of allergy such diagnoses are often disclosed by the patient. I shall cite a few of many observations. One mother stated that her child could not tolerate eggs. Whenever the child ate eggs in any form, vomiting and diarrhea occurred within a few hours. Another patient stated that cherries and nutmeg, in addition to bringing on an attack of asthma also produced abdominal discomfort, nausea, and cramps. The mother of a baby who suffered with eczema suspected milk as a cause of the eczema, because the child always regurgitated whenever an appreciable amount of milk was taken, and also complained of abdominal discomfort. Tests and clinical trial in this case proved the offenders to be milk, potatoes, celery, and apples. Avoidance of these foods cleared up the eczema and abdominal symptoms.

In many cases the patients cannot offer any clues. The symptoms complained of are no different from those of other dyspepsias. For example, a middle aged patient complained of belching, gas, intolerance for fat foods, greasy foods, and constipation. These symptoms were at times associated with nasal congestion. She could not trace it to my specific foods. Skin tests gave negative reactions. By the use of the elimination diets of Rowe her symptoms were traced to pork, cheese, apples, and grapefruit. The symptomatology may simulate any of the chronic digestive complaints. When other manifestations of allergy are present, the allergic state should be suspected as a basis of the symptom complex.

DIAGNOSIS.

There are no pathognomic symptoms or signs. Skin tests are very valuable, but not infallible. Allergy may be present in the absence of positive skin tests, and posi-

tive reactions may have no clinical significance. Only 50 per cent of all allergic patients give positive skin reactions. It is almost asking too much of a slight scratch, into which an extract of food has been rubbed, to render a positive etiologic diagnosis. On the other hand, in half the cases, the scratch does for us almost the unbelievable. The skin tests should be the beginning, and not the end of an investigation. The elimination diets of Rowe are most valuable, and should be used in all cases where the skin tests fail, or where treatment based on skin reactions has failed to yield results. The patient is placed on a diet of a limited number of foods, which however, meet all or nearly all the demands of a balanced diet with sufficient calories. If symptoms subside, and food at a time is slowly added, until symptoms appear, and the allergen is thus identified. Should the first diet not yield good results, another diet is prescribed, and the process is repeated. Treatment is affected at the same time. Rowe has published very detailed descriptions of elimination diets and menus.

COMMENT.

Allergy is a well established pathological entity. The gastrointestinal tract is involved much more frequently than is suspected. Many errors in diagnosis will be avoided, and many patients will be relieved, if allergy is considered. Etiological diagnosis in any branch of medicine is always difficult. It is no different in allergy. Skin tests are valuable, not infallible. Time and the hearty cooperation of the patient are often needed in order to arrive at a satisfactory conclusion.

REFERENCES.

- Alexander, H. L.: *Bronchial asthma, its diagnosis and treatment*, Philadelphia, 1928, Lea and Febiger.
- Dale, J., and Thornberg, H. D.: *Diets for the Identification of food allergies*, J. A. M. A. 93 : 505, 1929.
- Richet, C., Jr.: *Food anaphylaxis*, J. Allergy 2:76, 1931.
- Rowe, A. H.: *Elimination diets for diagnosis and treatment of food allergy*, 2: 76, 1931.
- Rowe, A. H.: *Food allergy, its manifestations, diagnosis and treatment*. J. A. M. A. 91: 1623, 1928.
- Rowe, A. H.: *Gastro intestinal food allergy*, J. allergy, 1: 172, 1930.

DISCUSSION.

Dr. L. S. Lippincott (Mississippi Fraternal Delegate): I don't know that I can add anything. I am enjoying the meeting very much. I think the whole idea of fraternal delegates to other state associations can bring about a closer union that we need.

At this time, when there are some rumblings about too much charged for medical care, something about state medicine, we should get together, and I think this idea of going from one association to another in a fraternal way is beautiful.

In regard to allergy, we are all becoming more interested probably in allergy than we used to be. We are finding conditions that we can show are due to allergy. Possibly we may be going too far along this line. We may be attributing things to allergy that are not due to it. We are watching it. I am trying to do this work myself, and in some cases we are having striking results. In other cases we do skin tests, we eliminate articles of diet, and we don't get anywhere. I am sure somewhere we are going to strike a happy medium that is going to help us a whole lot in some of these blind cases.

Dr. R. McG. Carruth (New Roads): I dislike to speak twice in the same hour, but this is a different paper.

I would like to accentuate what the doctor who has just preceded me said about the importance of the endocrine glands in considering this matter of allergy and anaphylactics. I have long thought this was the secret not only of allergic disease but of a number of our failures to adjust ourselves to our rapidly changing conditions. I have lived long enough and practiced medicine long enough to see many changes, and I will never forget that when we first began to talk about this thirty years ago there was a good deal said in the medical journals about endocrinology and the endocrine glands. We knew nothing much about them and we know nothing much about them now, except that when they get out of line and fail to function we get into a lot of trouble. Of course, it may be due entirely to whether the endocrine glands are running off the track or we running away from our endocrine glands or running ahead of them, but perhaps failure to adjust ourselves to rapidly changing conditions may have affected our endocrine system or us. Wherever the fault is, I believe we get many ideas with regard to the treatment from investigating thoroughly the effect of endocrine treatment. I have always thought that.

I have had doctors dispute with me the fact that both hay fever and asthma are enormously on the increase these latter days. We never heard much about them when I was studying medicine, a good many years ago. Now, in my Parish, in the whole state, and in the whole South, there is much hay fever. It seems to be covering the earth.

I believe the basis of our success will lie along the lines of endocrinology.

Dr. W. S. Kerlin (Shreveport): There is just one feature of this subject that Dr. Efron took up that he didn't mention, and it wasn't brought out by the various discussors, that I would just like to discuss briefly and that is the frequent presence of a eosinophilia in the absence of any demonstrable intestinal parasites or any allergic manifestations referable to the skin or bronchomucous membrane.

So frequently in routine blood examinations we find the eosinophilia varying from four to ten or twelve per cent that we cannot account for. If you go into those cases you will find they frequently present gastro-intestinal manifestations in the way of hyperacidity and migraine attacks.

If you will give the treatment to the gastro-intestinal upset it is surprising the way you can treat the increase in the eosinophilia. I felt this was a possible allergic condition or manifestation brought about by absorption from the gastro-intestinal tract.

Dr. J. M. Bodenheimer (Shreveport): I think that I was asked to open this discussion through a misapprehension. The chairman was kind enough to investigate a case for me that had taxed my diagnostic skill, but that I strongly suspected was allergic in origin. In this opinion he concurred, and thereby he obtained the impression that I might have some opinions on the subject. However, like every other general practitioner my knowledge of this subject is only superficial. A general practitioner meets so many varied conditions that he should be able to consider a sickness from every possible angle. Like a certain famous Englishman he must claim all knowledge for his province.

I was thinking while riding down on the train last night, about the condition of affairs now, when everybody is crying hard times, and all our merchants are making efforts to stimulate business. I was wondering why the doctor couldn't go along the same path the ordinary business man was traveling. He couldn't offer to reduce rates or give special bargain days, but he could investigate his

cases carefully and not do like a good many men do,—just sit down and write a prescription for a dose of calomel or for some quinine, or for a tonic, without even examining the patient. If he will investigate, he will find something to treat that he has not even suspected, and thereby he can improve his professional business and certainly give more honest service.

I am very much interested in allergy as a cause of gastro-intestinal disturbance. I was very much gratified to see in the last issue of the Southern Medical Association Journal a most unusual article by Duke, in which he discussed this phase of allergy very completely. One of the things that Duke says is "that practically every food may produce an allergic reaction." Dr. Efron, in his paper, mentioned the fact that everything except sugar and water might produce gastro-intestinal disturbance. Duke reports a case in which a small granule of sugar produced gastro-intestinal disturbance which he considered allergic. He reports another case in which worry or excitement produced this condition. He cites furthermore the case of a lady who had a violent diarrhea every time she got into an animated discussion. J. Friedenwald, in discussing this paper, went so far as to say that out of five hundred cases of mucus colitis at least one per cent was due to allergy.

A thing that strikes one considering whether or not a gastroenteric condition may be due to an allergic reaction, is the fact that the symptoms do not fit exactly into the picture of any definite organic disease. The condition may simulate gall-bladder trouble, it may simulate intestinal obstruction, or it may simulate appendicitis, but after you have observed all the symptoms of the case very closely, you will find that the symptoms do not correlate and point to a definite organic disease.

This is a point to be remembered. On the other hand, Duke goes so far as to say that while a condition may begin as an allergy, it can actually produce an organic disease. How much truth there is in that statement I am not prepared to say. One thing I do know: There are a great many conditions that will tax the ingenuity of the most astute diagnostician and will finally prove to be due to some allergic reaction.

I think Dr. Efron's paper is very timely and it considers a condition that we ought to be on the lookout for all the time.

Dr. D. N. Silverman (New Orleans): I have very little to add to Dr. Efron's paper and the excellent discussion which was just given by Dr.

Bodenheimer, but we must consider allergy as a very important etiological factor in the production of functional disturbances of the digestive tract. These disturbances may be acute or they may be chronic, as Dr. Efron has brought out.

In the acute functional disturbances we have severe spasm of the stomach and intestines, and sympathetic contractions of the gall bladder due mostly to the digestive products or by-products of the protein which is ingested. The chronic manifestations, such as spastic colon, are now thought to be due in some cases to an allergic manifestation of the bowel reacting, as it were, to ordinarily normal inhabitants of the colon such as the various strains of bacteria. This is in line with the inflammatory reactions which sometimes take place in the bowel as a result of changes in reaction to the normal bacteria which are found.

The protein of ingested food and that of bacteria are not the only substances which sometimes give us violent allergic manifestations. These symptoms not infrequently follow the ingestion of drugs, some of which are administered for the relief of certain gastro-intestinal disturbances.

Dr. A. L. Levin (New Orleans): The subject of gastro-intestinal manifestations in allergic diseases is a new fad in modern medicine. As I did not hear the paper, I do not know whether the essayist described only the manifestations or spoke also on the *modus operandi*. There is a very interesting little volume on the subject by Laroche, Richet and St. Giron, published by the California University Press. They designate the protein manifestations by a different name, "Alimentary Anaphylaxis." Personally, I feel it is the same thing that our fathers and forefathers called idiosyncrasy to certain foods and certain drugs. The protein manifestations were known long ago; the *modus operandi* is still not definitely explained.

It is probably the same as the Widal hemoclastic crisis. Widal's explanation of the crisis is as follows: "For some unknown reason, the mucous membrane of the stomach or upper intestinal tract will absorb proteins before they are chemically changed into amino acids. They enter the blood streams as peptones, and as such they are unwelcome guests and produce the known manifestations. If the liver function is normal, the blood stream will be protected against their invasion."

Other workers in the field claim that the mucous membrane of the stomach is probably in-

flamed in spots and thus permits premature absorption. Over-feeding is another possible factor. Too much food in the gastro-intestinal tract causes too rapid absorption before proper chemical changes have taken place. Some writers modify Widal's explanation by a philosophical deduction. The blood stream carrying peptones will upset the endocrine secretions, influence the endocrine glands and the disturbance in the endocrine glands will upset the vago-sympathetic nervous mechanism, resulting in a hemoclastic crisis.

This explanation has probably proven satisfactory in the following interesting case which I wish to relate:

A female patient was referred to me for gall-bladder pains and indigestion. She was advised operation, but refused. A careful study revealed that there was some gall-bladder trouble and liver function disturbance, but she also gave a typical history of urticaria. The urticaria in this case occurred mostly around the face; the lips and eyes would become sensitive and swollen. The gradual elimination of certain proteins proved of no avail. Her basal metabolic reading showed a minus thirty-four at one time and a minus twenty-eight at another. Since everything had been tried, I put her on an endocrine substance, Thyro-Ovarian. The urticaria disappeared entirely and she was perfectly free for about a year. As long as she kept up the treatment, she was free of urticaria; when she neglected herself, it would return, but in a milder form. There must be an endocrine factor which also plays an important part in those manifestations.

As far as the protein sensitization test is concerned, in order to determine the tolerance of the individual for certain foods, it is difficult to understand on a physiologic basis how it can be determined by the skin test. If the skin test brings out a positive reaction, we take it for granted that the individual is sensitive to that particular protein, not realizing that the protein did not have a chance to be changed chemically by the gastro-intestinal juices as food is normally changed in the stomach. This phase of allergy is being questioned by some writers on the subject who state the following: "We see sometimes cases where the scarification tests will show a sensitiveness, but when you give the same article by mouth, they are not sensitive."

Dr. B. G. Efron (New Orleans): I want to thank all of you gentlemen for kindly discussing this paper.

Allergy is a new subject. It was only in 1911 when Freeman and Noon first gave the immun-

ologic treatment for hay fever. It was in the middle of the last century that hay fever was first scientifically described. Not only is allergy a new subject, but allergic diseases are on the increase.

I wish to disagree with Dr. Levin concerning the influence of American, British and French writers. The British and American writers were the first students of allergy and have studied the problem more extensively than any other group. The only group besides the German who have really taken the subject up seriously is the group headed by Widal and Richat in Paris. The latter have done excellent work pertaining to gastro-intestinal allergy. In the last year Rowe translated one of the small booklets they have published.

With reference to the *modus operandi*, we know that the liver and the endocrine are concerned in some way; various biochemical observations have been made. Barber and Oriel published their findings as to what happens chemically in acute allergic attacks. These observations can be summarized briefly as follows: an increase in the non-protein nitrogen of the blood; fall of blood chlorides; increase of the excretion of ammonia in the urine; positive Van den Bergh reaction of the biphasic type, in a large proportion of cases.

We know the liver is a great chemical barrier, particularly in food allergy there is some impairment of liver function.

Barber has recommended the use of glucose in the treatment of allergic conditions.

We are all acquainted with the enthusiasm of Dr. Roussel of this city concerning the endocrine treatment of urticaria. Some cases have been controlled by this treatment others have failed to respond. Very often supposedly good endocrine therapy, particularly thyroid, seems to be ineffective in certain patients.

I was very much afraid to include sugar and water as the cause of allergy. I purposely left those out. I was well acquainted with Duke's work. I did not wish to include the whole world of substances.

A few words with reference to the skin tests. I brought out in the paper that we may get positive reactions that have no clinical significance, and we may get negative reactions when allergy is present. The reason for that is this: the skin reaction to a foreign protein is a little bit different than what actually occurs in nature, and in only fifty per cent of our cases do we get definite etiological diagnostic allergic reactions.

Because of this and because of the fact that we have had some failures in investigating these cases, we have had to resort to the elimination diets of Rowe. In many cases we are able to obtain excellent results by the use of these diets. However, they are time consuming. They require the patience of both the patient and the doctor who is treating the case, and sometimes one has to work with a single case for months and months. I assure it is worth while. You save a great deal of expense and very often useless operations.

THE IMPORTANCE OF PRENATAL CARE.*

JOSEPH P. EVANS, M. D.,

GULFPORT, MISS.

In order to form an estimate of the value of antenatal care, I will give you a brief analysis of statistics for a series of years, covering causes of infant and maternal mortality, together with a consideration of factors affecting the rates.

The latest complete statistics available from the United States Bureau of the Census for the entire birth and death registration area are for 1927.

A comparison of rates for the States and the District of Columbia in the area in 1922 with those for the same states and the District in 1927 gives a fairer picture of conditions and shows a greater decrease in mortality for both mothers and infants. For this area the infant mortality rate was seventy-six in 1922 and sixty-four in 1927. The maternal mortality rate was sixty-five per ten thousand live births in 1922 and sixty-two in 1927.

An analysis of maternal mortality by causes shows slightly lower rates in 1927 than in 1922 for accidents of pregnancy and labor.

The decrease in the death rate from puerperal causes is accounted for almost entirely by a decrease in the rate due to albu-

minuria and convulsions: eighteen per ten thousand live births in 1922 and fifteen in 1927.

It is in this group of causes of death that we should expect antepartum care to have the greatest influence. Certainly the reduction in rate has been coincident with the increase in health instruction to expectant mothers and the improved care given by the physicians.

There are, I think, certain complications of childbirth and pregnancy that are particularly amenable to antenatal prevention or correction.

The incidence of eclampsia may be reduced to, at most, a very small figure and eliminated altogether in primigravidae. The absence of eclampsia must be associated with an improved maternal mortality as, even under the most favorable circumstances, a case having developed eclamptic fits runs a considerable risk of a fatal termination, and, in addition, the fetal chances are jeopardized not only by the toxemia but also in many cases by prematurity.

Cases of cardiac disease, complicated by pregnancy, often present a problem as to the advisability of interference. There is no doubt but that the most important point in treatment is the prevention of appearances of decompensation; that is best effected by keeping the patient under observation and, when disquieting signs appear, insisting on absolute rest in bed. It has been pointed out that the fatal cases were those in which labor followed on loss of compensation, and that cases in which decompensation appeared as a result of labor recovered as a rule.

Induction of abortion is rarely considered any more in the treatment of cardiac cases.

All are agreed that a great proportion of cases of distocia, due to contracted pelvis or malpresentation, can be avoided by prenatal supervision during the latter weeks of pregnancy. There are other cases that

* Read before the Section on Surgery at the Sixty-fourth Annual Session of the Mississippi State Medical Association, Jackson, May 14, 1931.

give a history of frequent abortions unaccounted for, and if given anti-luetic treatment will go to term and deliver an apparently normal child.

I will not attempt to describe the procedures and treatments to be carried out in cases of early vomiting of pregnancy, pre-eclampsics, distocias, from whatever cause, or probably a diabetic complicated with pregnancy, but will try to impress on you that these conditions, in a large majority of cases, can be prevented or controlled if antenatal care is carefully observed in every case that comes to you at the beginning of pregnancy.

It has been conclusively shown by the prenatal clinics in this country that both fetal and maternal mortality rates have been considerably lowered, while the rates in the smaller localities have shown no appreciable decrease, and there is no doubt in my mind that such conditions still exist in these communities because of a lack of prenatal care, and apparently a lack of interest on the part of the attending physician.

In giving you a brief summary of prenatal routine, I will begin with, first, the patient's past history, which includes developmental characteristics, previous medical and surgical diseases, the menstrual history and an inquiry into the family history.

The medical diseases that are of interest are typhoid fever, scarlet fever, diphtheria, pneumonia, tuberculosis, nephritis and venereal diseases.

The surgical conditions of importance are pelvic or abdominal operations.

The family history should include familial diseases, multiple pregnancies and difficult labors.

Second, the obstetrical history as to previous pregnancies, abortions, type of labor, number of hours in labor, delivery, whether instruments or not, condition of child, and puerperium.

The history of the present pregnancy should include the date of last menstruation, and character, also the previous one; the date of quickening; also question as to any eye disturbances, headaches, nausea or vomiting, edema, constipation, and frequency of urination.

Third, a thorough general physical examination, including teeth, throat, thyroid, heart, lungs and extremities.

Abdominal examination as to the height of fundus, fetal heart beat, position of fetus.

Pelvic examination, which includes external measurements, internal measurements, and bi-manual examination. The vaginal examination should be done at the first visit of patient. Then during the last month, but under strict aseptic conditions.

The blood pressure is taken at the first visit and every subsequent visit, also the urine is examined at every visit. Once a month is sufficient until the last two months of pregnancy, then twice a month under normal conditions.

Another important point as to the urine, monthly readings of the amount passed in twenty-four hours will show you any change in kidney function.

And fourth, the instruction given to the mother should include hygiene, proper diet, the amount of sleep, rest, exercise and recreation, the type of clothing, the bath, and the care of the breasts.

Before concluding, I would like to mention the value of the roentgen-ray in revealing malpositions, monstrosities, and missed abortions, where such conditions being known considerable time can be saved.

Now, trying to show you the value of antenatal care, I have also given you an outline of this care, and the sooner the practitioner avails himself of this knowledge and uses it in his practice, just so soon will our fetal and maternal death rate

which is amongst the highest of civilized countries, be reduced to a minimum.

DISCUSSION.

Dr. R. W. Burnett (Biloxi): I wish to discuss nausea and vomiting of pregnancy. The success of this treatment is proportionate to the desires of the individual to bear children. Those women not wanting children will be very difficult to handle. Every pregnant women, from the onset of pregnancy, should be requested and encouraged to increase her intake of fluids, water, fresh fruit juices, sweetened with sugar or glucose. Starchy foods should be increased.

In place of the usual three meals daily, these patients should receive four or six meals, one especially late at night. Our suggestion to pregnant women is to reach for a sweet instead of a highly advertised cigarette, thereby increasing the glycogen content of the liver.

The above outlined procedures suffice in a large per cent of cases. In the more severe cases, which are usually met late, a more radical procedure should be resorted to.

Our suggested procedure consists of:

1. Rest in bed.

2. Isolation in darkened room.

3. The administration of one of the barbiturates by needle or per rectum, doses sufficiently large to produce a slight narcosis.

4. While patient is still responsive to suggestion, passage of duodenal tube through nose into stomach.

5. After tube has entered duodenum begin injection of fruit juices, glucose solution, water.

6. All the above procedures having failed, we discontinue giving anything by mouth and resort to intravenous injections of 10 per cent glucose in normal saline, giving 3,000 cc. or more daily, until urinary output is normal in amount, and specific gravity of 1.010.

All the above having failed, patient progressively getting worse, proper consultation and all agreeing, abortion should be performed.

Dr. Evans (closing): I want to thank Dr. Burnett for his discussion, and I haven't anything further to add to what has been offered.

BRONCHOGRAPHY.*

VICTOR M. MAXWELL, M. D.,

SANATORIUM, MISS.

Iodized oil, or lipiodol, is used as an opaque medium in the roentgenographic study of body cavities. It was first employed by Sicard and Forestier in 1921 as an aid in locating and demonstrating obstructions of the spinal canal, and later was used successfully by the originators in exploring dilatations, fistulous tracts and cavities of the bronchial tree and the pulmonary tissues.

This article is based on the results of this study and also the writings of Ochsner, Sicard and Forsetier, Sergeant and Cotténot, Nigoul-Foussal, Ballon, Archibald, Pritchard, Whyte, Gordon, Hartung, and others.

The iodized oil we have employed is the chemical compound of 40 per cent metallic iodine with oil of poppy seeds described and used by Forestier. The oil and iodine are so closely combined that the ordinary starch test fails to reveal free iodine.

Bronchiectasis has acquired a new interest for the roentgenologist since diagnostic bronchography with iodized oil has come into use. This method of examination makes possible the recognition of conditions which formerly escaped detection by the ordinary roentgen examination and it has served to explain the nature of some doubtful roentgen findings so that the condition can be more readily diagnosed even without its use. As a result, many cases of suspected tuberculosis, asthma or chronic bronchitis are now recognized as belonging to this class, and the disease, instead of being a rare one, ranks next to tuberculosis as a chronic pulmonary affection.

Bronchiectasis is an anatomic rather than a clinical entity and, as its name

*Read before the Section on Radiology at the Sixty-fourth Annual Session of the Mississippi State Medical Association, Jackson, May 13, 1931.

implies, it is characterized by a dilatation of the bronchi. It attains pathological significance when infection occurs within the dilated bronchi and their secretions and leads to a chronic productive cough and other symptoms. Some of the cases are undoubtedly of congenital origin, but most of them follow in the wake of the respiratory affections which accompany the diseases of infancy and childhood, especially the pneumonias. Others have their origin in conditions producing an atelectasis, notably aspirated foreign bodies. The occasional association with pulmonary tuberculosis, lung abscess and chronic paranasal sinusitis suggests an etiological relation in some cases. Years usually elapse between the time of inception of the disease and the time when the symptoms become sufficiently aggravated for the patient to seek medical aid.

The direct etiology is not known, but a number of theories regarding its pathogenesis have been advanced. The more plausible of them are: (1) Injury of the bronchial wall; (2) prolonged obstruction of a bronchus, and (3) sclerotic contraction of the parenchyma. No single theory explains all cases; in most of them a combination of factors is probably responsible for the changes produced.

As regards pathology, the dilatations may take the form of localized aneurysmal expansions called sacculations, or the lumen may be more or less uniformly enlarged. The latter variety to which the name cylindrical has been applied may exist merely as an increase in the caliber of the affected bronchi without other changes, or the tubular expansion may be limited to parts of them. Frequently there are club-shaped enlargements or cul-de-sacs at the distal ends of the dilatations. When the condition is associated with atelectasis, lung abscess or tuberculosis, the dilatations are often atypical, though they clearly belong to the cylindrical class. The walls of the dilated bronchi may be attenuated,

but as a rule they are thickened by inflammatory fibrosis.

The lower lobes are affected far more frequently than the upper. The process may be unilateral or bilateral and may involve parts of a lobe, entire lobes or more or less of the entire lung. In addition to the pathology directly attributable to the bronchiectasis there may be residual or associated pathological changes of the causative disease which tend to mask or complicate the picture presented.

Abnormalities of the bronchial wall plus a variable amount of air and secretion in the dilated bronchi produce the roentgen image associated with bronchiectasis. It is characterized by an increase of the linear markings with small irregular densities usually occurring in the lower lobes. In the advanced uncomplicated case there is a honeycomb appearance which is almost pathognomonic and which is familiar to all of us. This type of case is comparatively uncommon and of greater diagnostic than therapeutic interest because it is usually hopeless from the standpoint of treatment. Recognition of the earlier cases which may still be benefited by conservative therapy is particularly desirable and these present less obvious changes.

The author reports a series of 32 cases of bronchiectasis which were investigated by both the ordinary and bronchographic methods of examination.

A comparison of the roentgen findings before and after the injection of iodized oil demonstrated that cylindrical and saccular dilations could not be differentiated by the ordinary examination. Suspected sacculations invariably proved to be cul-de-sacs associated with cylindrical dilatations. The findings on the plain films were grouped under the following heads: (1) Increased linear markings; (2) irregular densities obscuring heart outline or dome of diaphragm; (3) irregular densities in the lower lobes; (4) displacement

of heart shadow without demonstrable cause; (5) localized densities suggestive of atelectasis; (6) generalized densities with irregular radiolucent areas, and (7) honey-comb appearance. As regards hilus shadows with enlarged glands, it was found that little reliance could be attached to them in relation to the disease. They were enlarged in 10 of the cases. In some of these, the increase was bilateral although the bronchiectasis was unilateral.

Increase of the linear markings was by far the commonest finding, being present in 17 of the 32 cases examined. In 5 of these it was slight, in 6 moderate, in 4 pronounced and in 2 very marked. The degree of increase did not always coincide with the size and extent of the dilatations, but the certainty of diagnosis was directly proportional to it. The greatest difficulty was experienced in interpreting slight increases, and several cases were subjected to the oil injection which proved negative. The conception of what constitutes normal markings is largely a matter of individual experience and depends to a considerable extent upon the density of films one is accustomed to examine. A peribronchial fibrosis from some such cause as chronic or recurring bronchitis is hardly to be distinguished from that due to slight or early bronchiectasis except for the fact that it rarely has a predilection for the lower lobes. Twenty-one of the cases with increased linear markings also showed irregular densities.

CONCLUSIONS.

(1) In about 60 per cent of all cases a diagnosis of bronchiectasis can be made from a study of the plain films.

(2) In the majority of the remaining cases, such an examination will reveal findings of a nature to indicate the probable presence of bronchiectasis or the desirability for further investigation by bronchography.

(3) Diagnostic bronchography with iodized oil is absolutely essential for obtaining accurate information relative to the

nature, location and extent of bronchiectatic dilatations.

DISCUSSION.

Dr. S. F. Strain (Sanatorium): It might be of interest to discuss the technic we used in making these pictures. Four methods have been described: (1) The supraglottic, (2) transglottic, (3) subglottic, and (4) the bronchoscopic. Our objection to the first is the fact that the oil might be swallowed, the third and fourth entail greater danger and special equipment. The method we use may be considered transglottic although it is not exactly like that usually described. After spraying or swabbing the pharynx and larynx with four per cent butyn or cocain solution, a small rubber catheter is passed through the nose into the larynx, guided if necessary by the laryngeal mirror. The patient is told not to talk and to avoid coughing if possible. The patient can then be taken to the roentgen-ray room where the injection can be made even in comparative darkness if desired for fluoroscopy. We do not hesitate to inject both sides at the same time, using about 10 cc. on each side, tilting the patient to the side to be injected. This method is simple, requires no special apparatus, and permits the injection without special lighting. This latter advantage makes it especially appealing to us in our work at the Sanatorium.

There is one point that we not mentioned in the paper; contraindications. There is no harm in using lipiodol in old, inactive tuberculosis, but it should not be used in active cases. It is contraindicated also in acute broncho-pulmonary disease, in heart disease, aneurysm, lung abscess and recent hemoptysis.

It is interesting to note the difference of opinion concerning the use of lipiodol in diagnosis and treatment of broncho-pulmonary disease among the leading chest specialists over the country. Dr. Vinson at the Mayo Clinic never uses it, while Dr. Prichard at Battle Creek, Mich., uses it extensively. Dr. Singer of St. Louis, Dr. Oschner of New Orleans and others are enthusiastic about its use both in diagnosis and treatment of bronchiectasis, while others such as Pottinger, Peters, Lord and Gekler use it very little.

Dr. J. Rice Williams (Houston, Miss): I have had no personal experience with this form of treatment or diagnosis. It occurs to me that to have iodine applied as an antiseptic is very radical.

As to pulmonary abscesses, that is hanging fire. Think of trying that as a therapeutic measure.

Dr. Maxwell: At the Sanatorium, the throat room and the roentgenray room are very widely separated—like a good many other things in Mississippi.

THE DIAGNOSIS AND TREATMENT
OF CANCER OF THE SKIN.*

M. D. RATCLIFF, M. D.,

McCOMB, MISS.

Cancer of the skin is one of the most easily controlled types of the disease from the point of view of treatment, in that the diagnosis should always be possible at an early stage, when the condition is curable. That some 3,000 persons die every year in the United States of cancer of the skin is evidence, however, that the education of the public as to the dangers of neglect of small and early skin lesions is as yet quite insufficient.

For practical purposes, cancer of the skin can be divided into two main groups, the basal celled type arising from the basal layer of the skin or from the epidermis of the hair follicles, and the squamous cell type derived from the keratinizing squamous epithelium of the epidermis. In about 10 per cent of the basal celled tumors there will be found an admixture of squamous cells which transforms these relatively benign growths into neoplasms of much the same malignancy as the squamous type. In addition, the types of carcinoma which arise in moles, either pigmented or non-pigmented, must be included in the classification. The rare benign tumors developing from the sweat and sebaceous glands are but of little importance, owing to their infrequency and lack of malignant qualities. Of very great clinical importance, on the other hand, are the benign precancerous lesions, such as the keratoses of the skin which appear in the aged, especially those who have been exposed to strong sunlight, as farmers and sailors, and chronic tuberculosis of the skin, or lupus vulgaris, in which cancer not infrequently develops. The importance of these lesions is primarily their pre-cancerous quality, so that keratoses and lupus vulgaris should

be treated properly in order to avoid cancerous changes.

Of the causation of cancer of the skin we know but little that is definite. While it has been long known that exposure to intense sunlight and irritating sea spray may cause cancer of the skin, how this action takes place is not definitely known. It is probably due to the ultraviolet rays in sunlight, and it has been shown experimentally that cancer of the skin in the mouse can be produced by prolonged and heavy exposure to ultraviolet rays from a quartz lamp. In sailors the additional irritant of salt spray is added. Nevertheless, all varieties of tumors of the skin appear in persons who have never been exposed to excessive sunlight, so that this factor can only be considered as an adjunct to others. There is no question that other types of irritation, the chronic eczemas, allergic skin lesions, etc., predispose to the development of cancer. Lubrication oils have been shown to be of great importance in the production first of warty skin growths and finally of true squamous cell epitheliomas. Cancer of the skin of the back of the hand is more frequent in mechanics who get their hands covered with lubricating oils, than in the ordinary population. A number of such garage mechanics' cancers have been seen in recent years. Anything which interferes with the nutrition of the skin, such as a burn, is always a point of lowered resistance, and while cancers arising in burns are rare, yet if the burn has a sufficiently large area, the scar may break down from lack of nourishment, and a cancer form in this ulcer. Another good example of cancer producing irritation is the well known roentgenray cancer, which was only too frequent in the older operators who exposed their hands before the fluoroscope in order to test their roentgen-ray tubes. There have been some 150 cases of this type recorded. With the present possibility of controlling the quality of the roentgenray tube at a distance, such cancer will no longer occur. But occasionally a

*Read before the Section on Radiology at the Sixty-fourth Annual Session of the Mississippi State Medical Association, Jackson, May 13, 1931.

therapeutic over-exposure not sufficient to produce ulceration, but merely atrophy of the skin, may be followed by the appearance of a neoplasm. In several cases these have been angiosarcomata, but most frequently they are squamous celled epitheliomata. In every case they are of high malignancy, and the slightest suggestion of change in such a skin lesion should be indication for extensive removal and grafting.

This brings up the interesting question of the relationship of tissue susceptibility to cancer. Not everyone receiving a roentgenray burn or exposed to tar or lubricating oil develops cancer. The assumption is very easy that such people have some special susceptibility. The same difference is noted in animals. Just what the fact means is as yet not understood. The easiest explanation, as has just been said, is to assume that there is an hereditary or acquired susceptibility to irritation. We all know that certain types of skin are easily sunburned, and other types are not. Such pigmentation is hereditary. Are we in a position as yet to transfer this to cancer? The answer must be that such a susceptibility is probable, but has not yet been proved. No one has yet bred a strain of white mice which was 100 per cent susceptible to tar painting. Experiments with other types of artificially produced tumors in animals have not shown that a very definite hereditary susceptibility can be developed by selective breeding. Nevertheless, families in which cancer of one type or another is very frequent are well known, so that all that can be said is that probably tissue susceptibility can be inherited, and then if the proper irritant happens to be applied, cancer will develop. If not irritated cancer will not occur.

The clinical symptoms of cancer in its advanced state are well known to everyone. Occasionally the differentiation between ulcerative and gummatous lesions on the skin of ulcerative lupus may be confusing, but microscopic section, and in the case of syphilis a therapeutic test, will imme-

diately clear up the diagnosis. It must be remembered, however, that an infected skin epithelioma may be greatly improved by the injection of arsenical preparations, because these have a bactericidal effect on some of the organism such as Vincent's, which keep the ulcerative lesions active, and so a certain amount of healing may be observed, even in a malignant growth if arsenical treatment is pushed. It is always wisest when any doubt exists to obtain a piece of tissue and submit it to the pathologist. There is no danger in such a procedure if the cut is made with a sharp knife and promptly cauterized.

The smaller growths are very difficult to diagnose, that is, the separation between a simple keratosis, a little greasy brown adherent growth, or a pigmented papilloma and a malignant pigmented mole may not be too easy. The beginning basal cell tumor looks very much like a seborrheic patch. With the appearance of ulceration in a skin which is kept fairly clean, the diagnosis of epithelioma becomes probable, and if this ulcer persists for a few months, the growth should be treated as malignant. The basal cell tumors are apt to be flattish and rather softer than the squamous type. The latter are apt to have a raised border which is a little harder than the surrounding tissue, and have a whitish color, the so-called "pearly" border of the dermatologists, and the growth when gently pinched between the fingers feels like a little piece of cardboard. This is especially important in early squamous cell carcinoma of the lip, but it may be easy to demonstrate anywhere where the skin is loose enough.

In general, it may be said that any skin lesion which ulcerates and crusts over and cannot be cured by simple cleansing and protective dressings should be regarded with grave suspicion and not allowed to progress without a microscopic examination, or if preferred, destruction by some means or other. It is a great mistake to rely too much upon minute diagnostic details. Too frequently one sees patients who have gone on to a hopeless stage while

their physicians have argued whether the lesion was due to syphilis because they had a four-plus Wassermann or whether it was possibly a carcinoma. By the time the discussion was settled the patient was beyond relief with carcinoma. When in doubt a piece should be excised, sent to a competent pathologist, and the necessary treatment should be applied immediately. The danger of a biopsy has been greatly overestimated, and is not nearly so great as is the frequent handling or squeezing of a tumor, which tends in the squamous cell type to massage the particles into the lymphatics and results in early extension to the regional lymph nodes.

For some strange reason, carcinoma of the skin is largely confined to the face and scalp. The basal celled tumors are more frequent in the area above the upper lip, the squamous cell tumors more frequent below it, but this distinction is by no means absolute. Basal cell tumors may also occur in other portions of the body, but here they are less frequent than the squamous type. The melanotic tumors may occur anywhere. They are especially dangerous when they are on the soles of the feet or between the toes. Under these circumstances the pressure of walking massages the tumor elements into the lymphatics at an extremely early stage, sometimes when the growth is only a fraction of an inch in dimensions the inguinal nodes may be filled with tumor growth. In any inguinal swelling, then, very careful examination should be made of the patient's feet to see if there is not present a mole of some type.

The treatment of cancer of the skin is still under discussion. Much of this discussion is concerned with the value of this or that technical method. Everyone agrees that the way to cure a tumor is to destroy it, and if it has any extensions, to remove those extensions, if possible. The method of this destruction, however, varies a good deal in different places and with the different specialties, and also with the different types of growth. I think it is generally accepted with the melanotic

tumors of the skin, which are mostly carcinomata arising in moles, that the only thing to do is to excise the growth widely. This excision may be done either with the knife, with the ordinary electric cautery, or with one of the high frequency sparking methods. It is bad technic to desiccate the growth only, without removal, because microscopic sections show that very frequently such moles have outrunners extending to a considerable distance under the surface of the skin from the primary lesion. If the tumor is simply desiccated, recurrence will take place from some of these cells which are in the lymphatics. It is therefore necessary to remove a considerable area of skin in addition to the malignant tissue. Such removal must be immediate. Unfortunately many people watch these moles grow for months until they are deeply ulcerated and widely spread. Surgery under such circumstances is merely palliative to relieve the patient of the discomfort of the ulcer and the annoyance of having to wear dressings, but sooner or later metastases will appear all over the body, and nothing can be done to alleviate the condition. Even benign moles when they are so situated that they are constantly rubbed or cut should be removed. The roentgenray and radium, when used in large doses, are capable of destroying melanotic tumors, but even when the surface of the tumor is destroyed, and the whole growth is apparently quiescent, there may be left behind in the scar viable cells and a distant recurrence will be the first warning of trouble. There are ample records of melanotic tumors which remained quiescent for some years after heavy radiation treatment, but finally metastasized either into the axillary lymph nodes or all over the body, though no local return took place. Nevertheless, if one of these locally cured tumors is excised, some of the original growth will be found in the deeper structures. It is therefore wiser not to use radium and roentgen-ray or simple desiccation only and alone for the treatment of melanotic tumors. The tumor itself should

not be merely destroyed, but the hot knife should remove a cake-like section of skin and subcutaneous tissue, in the center of which is the tumor. The wound is sterilized by the cautery and heals rapidly. This simple method has been much neglected.

The carcinomata must be treated according to their nature. What is suitable and proper for the basal cell tumors, which are of low malignancy, and almost never metastasize to the regional nodes, may be wholly improper and almost mal-practice for the squamous cell types. Also, the type of treatment will vary somewhat with the available technical skill and means in the patient's neighborhood. It is very useless to talk about the treatment of a basal cell tumor of the face with radium if no radium exists where that patient can afford to obtain it. Also the skill of those handling roentgenrays in therapy varies greatly in different communities, and a great deal of damage can be done by inexperienced and insufficient dosage, even on the basal cell tumors. The repeated treatment of such tumors with small doses of roentgen-rays almost invariably results in disaster. The tumor seems to become resistant to such radiation, spreads, and ultimately involves the bone and the deeper tissues. The rule for the use of radiation in the treatment of basal cell tumors is to employ a sufficient quantity to guarantee that the destruction of the tumor will be complete. This treatment may be carried out in two ways. A large dose may be given at a single sitting, sufficient to produce two or three skin erythema doses. This will result in a considerable ulcerative process, with a good deal of resultant scarring. The other technic is to use highly filtered radium in small quantities and apply it on a considerable thickness of some supporting material, such as balsam wood or wax, giving the patient the necessary exposure over six or eight hours. Such treatment of course requires the complete control of the patient; in other words, hospitalization if possible, but gives the

best cosmetic effects. The dosage and arrangements of the tubes and filters can be learned only by experience.

The treatment with roentgenrays, which is just as effective as by radium when properly done, is again a matter of experience and knowledge of one's apparatus. And let me say here, best tubes available may differ as much as 40 per cent in roentgen-ray output all else being equal. The dose must be two to three erythemas, and preferably with moderate filtration. A white scar is left, but the growth in 90 per cent of examples can be cured. The remaining 10 per cent are those containing both squamous and basal cells, and these must be excised.

The treatment of squamous cell carcinoma of the skin is preferably surgical if treated early. The amount of radiation required usually seriously damages the tissues and leaves a bad scar. Surgical excision, either with or without desiccation of the tumor by an electric spark, and grafting or turning in a flap to cover the wound area, often gives admirable results. The difficulty here, however, is exactly the same as with radiation. Is there a surgeon available who can do accurate grafting and plastic work? This is a specialty which requires some considerable training and experience, but it is the unwillingness of the patients to submit to treatment because of their fear of a deformity, not realizing that the tumor will make a far worse deformity than any surgery or radiation treatment may produce, that accounts to a certain extent for the death from cancer of the skin that we still see. When the patient learns that cancer of the skin can be cured when properly treated, and when the medical profession is educated as to diagnosis and danger and settle their differences of opinion and modify their technic so that with one type of growth the treatment, if radiation is selected, will be sufficient, and for the other the treatment, if surgery is selected, will be properly done, no one will die in the United States of these diseases.

NEW ORLEANS

Medical and Surgical Journal

Established 1844

Published by the Louisiana State Medical Society
under the jurisdiction of the following named
Journal Committee:

S. C. Barrow, M. D., *Ex-Officio*
For one year: W. H. Seemann, M. D.,
Randolph Lyons, M. D., Secretary
For two years: John A. Lanford, M. D.
For three years: S. M. Blackshear, M. D.,
H. W. Kostmayer, M. D., Chairman.

EDITORIAL STAFF

John H. Musser, M. D. *Editor-in-Chief*
Leon S. Lippincott, M. D. *Editor*
Willard R. Wirth, M. D. *Editor*
H. Theodore Simon, M. D. *Associate Editor*
G. C. Anderson, M. D. *Associate Editor*
D. W. Jones, M. D. *Associate Editor*
Jacob S. Ullman, M. D. *Associate Editor*

COLLABORATORS—COUNCILORS

For Louisiana

H. E. Bernadas, M. D.
Daniel N. Silverman, M. D.
C. C. DeGravelles, M. D.
J. B. Benton, M. D.
C. P. Gray, M. D.
J. H. Slaughter, M. D.
D. C. Iles, M. D.
J. H. Landrum, M. D.

For Mississippi

J. W. Lucas, M. D.
L. L. Minor, M. D.
M. W. Robertson, M. D.
Thomas J. Brown, M. D.
Willie H. Watson, M. D.
W. G. Gill, M. D.
Jos. E. Green, M. D.
J. W. D. Dicks, M. D.
D. J. Williams, M. D.

Paul T. Talbot, M. D. *General Manager*
1430 Tulane Avenue

SUBSCRIPTION TERMS: \$3.00 per year in
advance, postage paid, for the United States; \$3.50
per year for all foreign countries belonging to the
Postal Union.

*News material for publication should be received
not later than the twentieth of the month preced-
ing publication. Orders for reprints must be sent
in duplicate when returning galley proof.*

*THE JOURNAL does not hold itself responsible
for statements made by any contributor.*

*Manuscripts should be addressed to the Editor,
1430 Tulane Avenue, New Orleans, La.*

THE NEW YEAR.

The year 1931 has been a memorable one. There has been no great calamity, no war, not even an important election, but yet despite absence of any event which might be called historical occurring during the year, the past twelve months will live in the minds of many as a year not soon to be forgotten. The period of depression has desolated the thoughts of many people, and has literally so weighed down some few that they have actually sunk in the slough of

despond. There can be no question but that a great deal of the mental perturbation of the past year has been largely psychic. Money has not flowed in to the coffers of the doctor, nor to any other professional man, and business has been such that it has been difficult for the business man to make ends meet. Yet with all this worry and distress, economic and psychic, there has been very little alterations in the standard of living of the average man, be he a physician, a priest, or a bond salesman. The doctor has worried, yet he has not had to sell his automobile; the food that he has eaten has been as well prepared and as appetizing as that which he ate in the cheerful days of the Coolidge prosperity, and he has not eaten more than he did in those happy days; his clothes have been as warm and his amusements have been as many as in the past, yet for some peculiar and inexplicable reason the doctor, like every other income producing individual, has pictured himself as being in a bad way.

A new year stretches ahead. This new year gives promise of industrial revivification. The wheels of commerce will again go round, and the sick or near sick will flock to the doctor's office. With the signs of improvement in the economic and financial status of the country, the minds of many will be cheered and brightened. The depression may not be entirely over, but at least man will be less depressed mentally than he was in the past year, and gradually there will evolve a feeling of optimism which will permit him to think that, after all, all is well with the world. It is the earnest hope of the New Orleans Medical and Surgical Journal that next year will be a more cheerful and a happier one for its readers than last year, and it is our earnest wish that the psychic dejection, despondency, gloom, and melancholy will be banished from the minds of all of them in the coming months.

1932 ANNUAL MEETING.

The Secretary of the Louisiana State Medical Society has been requested to announce that in accordance with the instructions received from the House of Delegates, the Executive Committee of the Louisiana State Medical Society met on November 18, 1931, and arranged to dispense with the scientific program in 1932 and hold the meeting in New Orleans instead of Lake Charles.

In view of the fact that the American Medical Association holds its meeting in New Orleans in 1932 on May 9-13 inclusive, the Executive Committee decided to have a meeting of the House of Delegates on Monday, May 9, and Tuesday, May 10, with the General Meeting immediately following, and the President's Address, presentation of emblems to Ex-Presidents, etc., on Monday night, May 9. This plan will give the officers and those attending ample time to complete the business of the State Society and give their undivided attention to the unusual scientific program and other advantages offered by the American Medical Association.

HEPATIC ELIMINATION OF
PHENOLSULPHONPHTHALEIN.

It is a trite remark to say that the phthalein test of kidney efficiency is performed about as frequently as any other clinical laboratory examination, even including the examination of the urine. Certainly it is of the most frequently used of any functional test of a laboratory nature. In the consideration of the results of the phthalein test, considerable interest is aroused and a great deal of information is obtained by a low output of this particular chemical substance, but, little attention has been paid to the increased elimination of phthalein by the kidney. When such an event takes place, it is customary to look upon it as due to some error of technic, either in the estimation of the percentage

of dye elimination or through some error in the administration of the substance. Such tests are usually considered valueless. A recent paper by Hanner and Whipple* affords an explanation of why these unusual and bizarre results occur from time to time.

Rowntree and Geraghty first showed that the liver was capable of excreting phthalein. Additional evidence has been gathered to show that this original concept was well sustained and, in fact, definitely proven by such observers as Marshall and Vickers, Kendall, Major and others. Hanner and Whipple now show by experimental methods that phthalein is definitely eliminated through the bile as well as through the urine. It is quite possible that 20 to 30 per cent of the dye is excreted by the liver. The experimental proof of this was obtained by producing liver injury in the test animal by one of several methods. It was found that in the presence of the liver injury there is an increase in renal elimination of phthalein, the rise being from the control level of 75 to 78 per cent to from 90 to 97 per cent. When the liver injury is repaired, the phthalein output returns to normal figures. Apparently cholagogues have no effect upon the elimination of phthalein through the bile. The phthalein that is lost through the bile is not reabsorbed from the intestinal tract as shown by the fact that when the dye is given by mouth only from 3 to 5 per cent appears in the urine. The obvious inferences to be drawn from these studies are that high figures for the amount of phthalein eliminated, are probably due to pathologic changes in the liver; excessive elimination of the dye might be a substantiating proof of the presence of liver disease; and combined kidney and liver disease vitiate the information obtained by the phthalein test.

*Hanner, J. P. and Whipple, G. H.: The elimination of phenolsulphonphthalein by the kidney. *Archives of Internal Medicine*, 48:598-610, 1931.

HOSPITAL STAFF TRANSACTIONS

SURGICAL STAFF OF CHARITY HOSPITAL.

The monthly meeting of the Surgical Staff of Charity Hospital was held, December 16, in the Nurses' Auditorium. The meeting was called to order by Dr. I. M. Gage, Chairman. Fifty-four members were present. The minutes of the previous meeting were read and approved. A communication from the Superintendent was read. This requested the members of the staff to obtain dental consultations before requesting roentgen-ray studies of the teeth. Under the head of new business: Dr. Joseph Levy stated that he had spoken with Mr. Ponder, the engineer, regarding automobile parking tags, those used at present being easily corroded, lost, etc. The engineer stated that if appropriate design were submitted he could, for a small fee, make a sign of brass or bronze. Dr. Levy stated further that Dr. Gomila had said that if such a design were adopted he would try to arrange for certain privileges in parking, etc. This proposition provoked little discussion and no action was taken. The Chairman discussed the preparation and sterilization of drainage and suture material. He reported certain cases of infection which seemed associated with the drains. Dr. Gessner moved that the body authorize the Chairman to take up this question with the proper authorities and report at the next meeting. This was seconded by Dr. Walet and passed. There being no further business the meeting passed into the scientific section, the following deaths being brought up for consideration and discussion:

1. Colored male, aged 52 years, appendiceal abscess with a possible carcinoma of the stomach. Forty days before admission the patient had suffered a severe attack of acute indigestion and roentgen-ray examinations showed filling defect. He was operated upon on July 26 and the abscess drained, and again on August 28, when another abscess was found located in the lumbar region, but connected with the first abscess. This, too, was drained. Possibility of peptic ulcer was discussed.

2. White female, aged 27 years, in the postpartum state, showed an extensive cellulitis of the face and scalp, with a pan-ophthalmitis and developed a septicemia. The abscesses were repeatedly aspirated before being widely drained. Advisability of early surgical intervention was discussed.

3. White male, aged 2 years, first and second degree burns of the back and buttocks. Admitted with a high temperature. The Chairman discussed the recent work of Underhill indicating toxic effects in burns are due to concentration of blood,

and rapidly disappearing when this fault is corrected.

4. Colored female, aged 48 years, hypertension, heart disease, and fibroids. This patient was admitted in coma. Her sister stated that she had suffered with dizziness and headache. Leukocyte count was 35,250, with 95 per cent neutrophils. She remained lethargic for three days, but became more alert after a spinal puncture, later lapsing into lethargy. Her blood pressure readings ranged from 216-116 to 140-94. Dr. Alsbrook had seen this patient in consultation and discussed the case.

5. White male, aged 57 years, carcinoma of the stomach with metastases, jaundice, and gall stones. This patient was operated upon with a diagnosis of obstructive jaundice and possible carcinoma of the head of the pancreas. An anastomosis was done between the gall bladder and the intestine. Autopsy showed a common duct strangulated by metastases.

6. White male, aged 51 years, admitted with diagnosis of endarteritis obliterans of both lower extremities. He was given typhoid vaccine intravenously and two days following developed a severe reaction with chill and dyspnea, and died.

7. Colored male, aged 65 years, cholecystitis, carcinoma of the head of the pancreas. An anastomosis was done between the gall bladder and the intestine.

8. Colored female, aged 52 years, retention of urine. Catheterized specimen was hemorrhagic and cystoscopic examination showed bladder so filled with clots that no satisfactory views could be had. A suprapubic hysterectomy was done in order to evacuate the clots and arrest the hemorrhage, but an inspection of the bladder wall failed to reveal the bleeding point.

9. Colored male, aged 74 years, sub-acute and acute cholecytic hepatitis and myocarditis. Blood pressure was 210-100. Following the intra-spinal administration of 180 milligrams of novocaine the patient showed signs of collapse. The abdomen was rapidly opened and heart massaged without results. This death was considered to be due in all probability to spinal analgesia. Dr. C. Jeff Miller directed the attention of the Staff to a recent report on the results of spinal analgesia which appeared in the Journal of the American Medical Association, and recommended it to the attention of the Staff.

10. Colored male, aged 65 years, chronic cholecystitis and cholelithiasis. This patient was oper-

ated upon under spinal and splanchnic analgesia. A stone was removed from the common duct and a cholecystectomy was done. The gall bladder contained mucus and in its removal there was some spillage. After removal of the stone from the common duct, the common duct was closed and the omentum was brought over the suture line. The wound was drained because of the spillage of bile. Dr. Maes, in discussing this case, mentioned the desirability of draining the common duct following the removal of stone.

11. Colored male, aged 29, granuloma inguinale. Patient had retention of urine, spastic paralysis of the legs and high temperature. Accompanying the paralysis was anesthesia, which gradually ascended to the mid-abdomen region. He became incontinent of feces and developed extensive pressure sores. A spinal fluid was negative. Neurologic consultant had considered case one of myelitis secondary to granuloma inguinale.

12. Colored female, aged 47 years, was admitted to the hospital because of bleeding from thyroidectomy wound, she having been discharged the previous day. After ineffectual efforts to control the hemorrhage, the wound was opened and there was found an erosion of the internal jugular vein.

There being no further business, the meeting adjourned.

G. C. Anderson, M. D., Secretary,
Surgical Section.

CHARITY HOSPITAL MEDICAL STAFF MEETING.

December 15, 1931.

The regular monthly meeting of the Medical Staff of Charity Hospital was held December 15, 1931, with Dr. Wallace Durel presiding.

The first case, presented by Dr. A. Levin, was a young white female, aged 22 years. A diagnosis of juvenile essential hypertension had been made in this case. There was a history of the hypertension for the past five years, though no record of blood pressure readings through this time were available. Her blood pressure during three weeks rest in bed had ranged between 250 systole, 140 diastolic and 220 systole, 120 diastolic. The physical examination was essentially negative and there was no vascular sclerosis. The urine examination had been negative. The renal function tests had given readings of 20 per cent, 35 per cent, 70 per cent and 25 per cent, on four different occasions. The maximum concentration had been 1.020, the blood chemistry was normal, and the Wassermann reaction was negative. The roentgen-ray examination showed the heart to be slightly enlarged. The eye grounds showed a mild papillitis.

The case was discussed by Dr. P. H. Jones who stated that he did not agree with the diagnosis of hypertension in view of the abnormally low P. S. P. readings. He regarded the case as a probable chronic nephritis with hypertension.

Dr. J. Davidson presented two patients with unusual pulmonary conditions and interesting roentgen-ray findings. The first was a white female, aged 58 years, who had a history of weakness and pulmonary hemorrhage. The diagnosis of bronchiectasis had been made and the lipiodal injection had verified the diagnosis. The bronchoscopic examination had failed to show any other abnormality.

The second case was a white female aged 69 years who had had diabetes for five years. She had complained of pain in the upper right chest and the physical examination had showed a collapse of the upper lobe of the right lung. The roentgenogram had clearly demonstrated this. Dr. Granger, in discussing the findings, offered his opinion that the collapse had been a slowly progressing one, probably developing from bronchial cancer.

Dr. Cazenavette then presented three instructive neurological conditions. The first was a case of multiple sclerosis in a Mexican male, aged 26 years. There was right sided weakness and bilateral temporal pallor of the optic fundi. There was no tremor and no speech disturbances in this case.

The second case, a white male aged 67 years, showed marked difficulty in speech and swallowing and a constant dribbling of saliva from the mouth. There was weakness of both lower extremities with a steppage gait. The Wassermann and spinal fluid examinations were negative, except for the presence of an abnormal colloidal gold curve. There was also very clearly demonstrated fibrillary movements of the tongue that Dr. Cazenavette pointed out were typical of a bulbar paralysis. Because of the associated spinal cord involvement in addition to the bulbar paralysis the case was considered to be one of chronic poliomyelitis. Dr. Daspi discussed the cases and agreed with the diagnosis.

There followed a brief presentation of two interesting cases with their postmortem examinations. Dr. Tripoli discussed the pathological findings and demonstrated the outstanding abnormal viscera.

Willard R. Wirth, M. D.

THE FRENCH HOSPITAL.

A regular meeting of the French Hospital Staff was called to order Friday, November 27, 1931, Dr. M. J. Lyons presiding. Those present were Drs. H. B. Alsobrook, G. C. Anderson, J. W. Atkinson, L. L. Cazenavette, J. R. Cutting, F. Gallo,

R. L. Gordon, W. H. Harris, J. Palermo, R. F. Sharp, D. N. Silvermann, W. R. Strange, C. J. Tardo and J. N. Tessitore.

The minutes of the last meeting were read and approved and the reports of deaths and discharges given. Dr. Gordon discussed a death following a suprapubic cystotomy. He stated that the patient was a poor surgical risk, but gangrene had set in and was spreading so rapidly that surgery was compulsory.

A motion was passed to change the date for staff meeting as the present one is not satisfactory to all. Dr. Lyons appointed a committee consisting of Drs. Alsobrook, Graffagnino and Harris to look into this matter.

Dr. R. J. Cutting then spoke on the "Causes of Reactions Following Intravenous Injections of Dextrose." The state of the patient or the disease has nothing to do with the occurrence of reactions. There are two types known as speed shock and water intoxication. In speed shock there is nausea, vomiting, a precipitous decline of blood pressure, tonic contractions of muscles. This reaction is dependent on the speed with which the infusions are given. The maximum rate is 75 grams or 300 c.c. of 25 per cent solution. Water intoxication is characterized by inability of patient to swallow, puffiness about eyes, vomiting.

It was proven that the presence of pyrogen, products of bacteria, in water is responsible for the causation of reactions. The means of insuring against the presence of pyrogenic substances is to use double distilled water which has been distilled in an all glass machine of hard glass, and which has been sterilized and capped immediately after the solution is made. Dr. Cutting then showed a special syringe which he uses for intravenous injections.

There being no further business, the meeting adjourned.

C. J. Brown, M. D.

SOUTHERN BAPTIST HOSPITAL.

The regular monthly Clinical Staff Meeting was held Tuesday, December 22, at 8:00 p. m., with Dr. J. Holmes Smith in the Chair. The first paper was presented by Dr. E. A. Socola, who reported on some cases of Exanthem Subitum. This paper was discussed by Dr. Rena Crawford and Dr. James E. Bailey. Dr. E. L. King then presented the subject of Ruptured Uteri, and reported some cases. The paper of Dr. King was discussed by Dr. T. B. Sellers and Dr. H. V. Sims.

During the month there were discharged from the hospital 469 patients. Nine of the patients died during this time. Only one of these cases came to autopsy, a very poor autopsy record.

KING'S DAUGHTERS' HOSPITAL, GREENVILLE, MISS.

Staff Meeting, December 9, 1931.

Abstract.—A case report of scurvy simulating acute osteomyelitis of the tibia.—Dr. R. D. Dick-ins.

Patient.—Negro, male, aged 10 months.

Present Illness.—Fretfulness for four days with slight swelling with seemingly acute pain above the right ankle for three days. Any manipulation of the distal half of the lower right extremity has caused him to cry. Temperature had not been taken. He has vomited twice in the last two days.

Past History.—Normal birth. Breast fed until five months old, at which time his mother died of pneumonia. Since then he has been fed with boiled cow's milk; cod-liver oil has been given irregularly, but no orange or tomato juice has been taken. No history of bleeding.

Physical Examination.—Apparently well developed. Temperature 101.2° F. Pulse 110. Definite swelling above the right ankle with exquisite tenderness over the distal epiphyseal area of the tibia. Slight tenderness also present over the distal epiphyseal area of the left tibia. No other areas of tenderness located. The gums were boggy, showed definite evidences of hemorrhage. Other findings were negative. No heart murmurs. No splenic enlargement. No enlargement of the right inguinal or popliteal lymph nodes, no evidence of lymphangitis.

Laboratory Examination.—W. B. C. 10,100; polymorphs 51 per cent, lymphocytes 45 per cent, transitionals 2 per cent, eosinophiles 2 per cent; R. B. C. 4,000,000; hemoglobin 75 per cent.

Roentgen-ray examination showed two very definite elevations of the periosteum along the distal portion of the shaft of the right tibia, apparently due to subperiosteal hemorrhages. Also the distal ends of the diaphysis presented a slightly wooly or fluffy appearance, which was also present on the left tibia ("Trummerfeldzone") though the shaft was not widened).

Treatment.—Immobilization of the lower right extremity from above the knee down. Four ounces of orange juice daily.

Course.—Recovery was sensational.

Discussion.—This case of scurvy seems of particular interest in that it so closely resembled acute osteomyelitis of the tibia. Scurvy rarely presents a temperature of 100° F. Here it was 101.2° F. Symptoms of such acuteness referable to one area are not the rule in scurvy—here such

exquisite tenderness over one spot on the tibia makes one dubious in ruling out osteomyelitis immediately. The line of treatment for the two conditions is entirely different, thus the importance of a correct diagnosis is imperative.

VICKSBURG SANITARIUM AND CRAWFORD STREET HOSPITAL.

Staff Meeting, Thursday, December 10, 1931.

Abstract.—Pyloric Obstruction. Dr. J. A. K. Birchett, Jr.

Patient.—Colored, male, aged 33 years; farmer.

Chief Complaint.—Pain in stomach.

History of Present Complaint.—Began in 1929; first noticed that had pain in pit of stomach, usually after meals, worse one or two hours after meals. At times has had sensation of being too full. The symptoms have gradually become worse. Two weeks ago pain and discomfort in epigastric region became continuous and patient began to vomit, which gave relief for two or three hours afterwards. Noticed that food appeared in vomitus which had been taken two or three days previously; no blood or dark material had been seen in vomitus. Three days ago began to vomit bright red blood and some old blood. There has been black sticky material in stools for the past week suggestive of blood. Has lost about thirty pounds in weight since August, 1931.

Past and family history are not germane.

Physical Examination.—Fairly well developed but poorly nourished negro male walked into examining room complaining of pain in abdomen and vomiting blood.

Head negative except for prominence of malar bones and receding of buccal fat. Eyes normal. Nose negative. Oral hygiene poor; tongue coated; breath foul; several carious teeth. Neck negative for thyroid or glandular enlargement.

Heart.—Rate 88, regular, no murmur, no enlargement. Blood pressure 120/80.

Lungs normal.

Abdomen shows some rigidity; scaphoid receding type; thin wall; pain on palpation of the upper right quadrant and epigastric region. No mass found.

Genito-urinary system negative. Skin dry; no skin disease. Reflexes normal.

Clinical Laboratory.—Urine essentially negative. Blood Wassermann, Kline and Young, and Kahn tests negative. Erythrocytes 5,440,000; hemoglobin, 70 per cent; leukocytes, 17,800; small lymphocytes, 20 per cent; large lymphocytes, 7 per cent;

large mononuclears, 8 per cent; polymorph neutrophils, 65 per cent, with 30 immature forms.

Roentgen-ray and fluoroscopic examinations show peptic ulcer with duodenal or pyloric obstruction.

Procedure.—With evidence of an obstructing lesion at the lower end of the stomach and no food passing through, our desire was to get the condition of this patient improved so that he might have a laparotomy with a short circuit operation so that stomach contents could be passed to the small intestine for absorption and relief of starvation.

To give tone to the dilated stomach, it was washed twice daily. At first the residual contents measured more than 2000 c.c. Glucose was given twice daily and liquids were resorted to but it is doubtful if they were assimilated. After three weeks, the general condition improved somewhat and it was thought that if any relief could be offered surgically that the time was at hand. A brother was used as a donor and 600 c.c. of citrated blood were given by transfusion. The day following transfusion exploratory operation was performed.

Operation.—After 125 mg. of novocaine had been placed in spinal canal, a high left midline incision was made to give easy access to stomach. The abdominal wall had no fat. The omentum was not visible. The gall-bladder was thick and fibrous and covered by a mass in the upper end of duodenum, the mass causing the obstruction. The stomach showed evidence of peptic ulcer on the anterior surface. The stomach had more tone and was smaller than had been anticipated following the prolonged over distention. The upper jejunum and duodenum were firmly fixed in the previously mentioned mass.

The colon, especially transverse, was firmly fixed to the posterior abdominal wall and it was impossible to lift it up to do the usual posterior gastroenterostomy. There was evidence of a subsiding peritonitis in the region of the transverse colon and posterior to the stomach. A short circuit was affected around the obstructing mass by doing an anterior gastroenterostomy. This was performed quickly and the abdomen closed. During the early part of the operation, the patient went into profound shock, due, I think, to the influence of the spinal anesthetic, with a sudden drop in blood pressure. However, the pulse of the abdominal aorta was full and strong and regular and after placing the patient in the Trendelenberg position and giving ephedrine, he rallied, and when he left the operating room seemed to be in fairly good condition. After being taken to ward and while being lifted into bed, patient again collapsed and could not be revived. The abdomen was imme-

diately re-opened and pathological specimen removed for study.

Pathological Report.—Stomach, 10 x 4 x 1½ inches, surface smooth and glistening. An area 1½ x 1 inch in prepyloric region on anterior surface, 2½ inches from pylorus is much firmer than the surrounding tissue. At the lower part of this area there is a rounded depression, ½ x ¾ inch, proximal to this area there is a small section of jejunum, 5 x 1 inch, attached by recent operation. Stomach opened along lesser curvature. Walls moderately thickened; stomach contains small amount of thin golden bile; no blood found. The mucosa is bright red; folds are apparently normal except in the prepyloric region on anterior wall corresponding to the depressed area on outer surface, where there are no folds, the mucosa is smooth and glistening, and bright red in color. At the lower margin of this area there is a definite punched out ulcer ¾ x ½ inch extending through the mucosa. The margins are smooth with no signs of recent hemorrhage. The wall around the ulcer is very firm.

The pyloric sphincter is normal in appearance except for injection of mucosa. The mucosa of the duodenum is injected but there is no ulceration. The duodenum is wrapped in a mass of adhesions and adherent to the gall-bladder, pancreas, and transverse colon, causing a constriction around duodenum about 2 inches from pylorus and almost obliterating the lumen.

The gall-bladder, 2½ x 1 x 1¼ inch, is fibrous, incorporated in the fibrous mass, intimately adherent to liver. On opening the gall-bladder about 30 c.c. of golden black thick bile exudes. The walls are greatly thickened and the lining is apparently partially denuded. The cystic duct and common duct are patulous.

The pancreas, 7 x 1½ x 1 inch, is firmly adherent to the duodenum, transverse colon and gall-bladder; firm in consistency. The transverse colon, 9 x 2 inches is greenish pink, very firm. Lumen filled with semifluid greenish brown fecal material.

Jejunum, 5 x 1½ inches, is bluish pink, smooth and glistening. The mucosa is injected and covered with bright golden bile. The opening from the jejunum to the stomach is 1¼ x 1 inches; no signs of hemorrhage.

Omentum, 3 x 6 inches, is veil like in appearance, with practically no fat.

Microscopic examination showed ulcer of stomach with much chronic and considerable acute inflam-

matory and with much dense fibrosis throughout wall. Remainder of mucosa of stomach showed intense acute inflammatory with considerable chronic inflammatory in deeper areas. Duodenum showed chronic and acute inflammatory; wall continuous and indistinguishable from fibrous mass. Gall-bladder shows lining denuded and wall bile stained; chronic inflammatory; continuous with chronic inflammatory mass. Liver shows some hyaline fibrosis in region of vessels. Pancreas not remarkable.

Abstract.—Catarrhal jaundice—Dr. L. J. Clark.

Patient.—White, male, age 15 years; school boy.

Principal Complaint.—Swelling of face, headache, weak back.

History of Present Complaint.—Has been complaining of boring eyes and photophobia, having pains in various parts of body, fever, and swelling of face for past week or ten days.

Physical Examination.—Temperature, 101° F.; pulse, 90; B. P., 130/80. Large cryptic tonsils; red pharynx; systolic murmur at apex. Lungs and abdomen negative. Blood examination showed nothing remarkable. Urine showed a few fresh red blood cells.

Course.—Patient was put to bed and in three days was feeling better, with normal temperature, and up and about. Seven days later patient was very icteric with bile in urine and slight itching of skin, having a great deal of epigastric discomfort, particularly after meals, no diarrhea but chalky stools. The patient was again put to bed and given a bland diet and mild laxatives. In about three weeks the jaundice disappeared and the patient is entirely well at present.

Patient.—White, female, age 18 years; school girl.

History.—States that about ten days ago she had eaten salmon that made her sick; a slight gastrointestinal upset with fever, diarrhea, and later jaundice.

Physical Examination.—Examination was negative except temperature 99.6° F., marked general icterus, and slight soreness over epigastric region. Physical examination negative.

This patient has been jaundiced now for three weeks but is slowly improving.

Abstract.—Ileo-Colitis with Unusual Sequelae.—
Dr. G. C. Jarrett.

Patient.—White, male, 3 years old, admitted to hospital October 14, 1931.

Chief Complaint.—Fever; loose, watery, bloody stools with mucus.

Present Illness.—Child had been in perfect health up to five days before admission, at which time he awoke in the morning with high fever, nausea and vomiting, and soon thereafter frequent loose stools. During the day of onset stools became very loose and contained large quantities of mucus and blood. Since onset has had an average of one stool per hour, both day and night; fever has remained high since onset; nausea and vomiting present up to 24 hours before admission. Child has had only water and no other food or fluid since onset, but had taken large quantities of water. There had been marked tenesmus with prolapse of rectum with each stool during the past 48 hours. No cold, sore throat, or other respiratory symptoms prior to onset. Only indiscretion in diet was that day before onset had eaten great number of green pecans. Two other children of the same family had also eaten green pecans and they too had fever with frequent stools which lasted only a short time.

Physical Examination.—Temperature 101.6° F. Well developed and nourished but dehydrated and intoxicated infant, very acutely ill, fretful, drowsy, and does not want to be disturbed. Teeth coated; lips very red and dry; occasional deep inspiration with sighs; some protrusion of rectum with attempts at stool; irritable. Physical examination otherwise negative.

Clinical Laboratory.—Erythrocytes, 7,408,000; hemoglobin, 87 per cent; leukocytes, 4,000; small lymphocytes, 4 per cent; large lymphocytes, 5 per cent; large mononuclears, 1 per cent; polymorph. neutrophils, 81 per cent. Urine showed trace of acetone, and few hyaline casts, otherwise not remarkable. Feces showed blood, microscopic and chemical; no parasites or ova; cultures for typhoid, paratyphoid, and dysentery negative.

Course of Treatment.—During the first week's stay in hospital child was put on skimmed boiled cows' milk which was taken readily; given fluids as orange juice and water to extent of about 40 ounces in 24 hours. Medication consisted of paragonic, Dovers powders, bismuth subnitrate, and kaolin. In addition was given one blood transfusion of 200 c.c. of whole citrated blood intrav-

enously from father and repeated clyses of glucose solution in saline. At the end of this time was still very toxic, having about 18 to 24 stools daily with mucus and blood.

At the beginning of second week Mead's protein milk in barley water was substituted for the skimmed cows' milk and with this the stools improved both in number and appearance; there was no blood and only occasionally mucus, but child remained dehydrated and toxic in spite of daily clyses or intraperitoneal injections of Hartman's solution, 5 per cent glucose by clyses, and Hartman's solution in water, intraperitoneally; also another transfusion of 200 c.c. of whole citrated blood intravenously. During this time the child developed a marked stomatitis with cultures showing *Staphylococcus albus*.

During the next week, the stools became yellow and normal in appearance with no blood or mucus but continued to have six to ten in 24 hours. The ulceration of the buccal membrane became progressively worse, gums became red and swollen and lower central incisors became loose and dropped out, pus oozing from the cavity. Later there appeared a swelling and redness of mandibular region from midline to lateral end and also upon neck for a distance of about 1½ inches. With hot applications the swelling subsided except for area in midline of mandible which remained red, hard, and brawny. A diagnosis of osteomyelitis of the mandible was made but no surgical interference was advisable due to the condition of the child and also as free drainage was already established with the extraction of the lower incisor teeth. The ulceration of the buccal membrane was not that of noma for there was no deep destruction of tissues with slough. During this period repeated clyses and intraperitoneal injections of Hartman's solution were given and another transfusion of 250 c.c. of whole citrated blood given intravenously.

Upon the 26th day after admission there was elicited a to and fro friction rub at the base of the heart but with no enlargement or murmurs. A diagnosis of pericarditis and septicemia was made. The condition of the child grew progressively worse until death on the 31st day after admission.

Autopsy Findings.—Broncho-pneumonia of lower lobes of both lungs; fibrinous pericarditis; multiple ulcers of small intestines in lower ileum. Cultures from pericardium and intestinal ulcers showed gram positive *Staphylococcus albus* and streptococcus, non-hemolytic. Heart blood showed *Staphylococcus albus*.

TRANSACTIONS OF ORLEANS PARISH MEDICAL SOCIETY

- January 4—Eye, Ear, Nose and Throat Hospital Staff, 8 P. M.
- January 8—Pathological Conference, Hotel Dieu, 11 A. M. to 12 Noon.
- January 8—Physiology Seminar, Tulane Medical School, 5 P. M.
- January 11—ORLEANS PARISH MEDICAL SOCIETY. Installation of Officers, 8 P. M.
- January 13—Touro Infirmary Staff, 8 P. M.
- January 14—French Hospital Staff, 8 P. M.
- January 14—Pathological Conference, Hotel Dieu, 11 A. M. to 12 Noon.
- January 15—I. C. R. R. Hospital Staff, 12 Noon.
- January 15—Physiology Seminar, Tulane Medical School, 5 P. M.
- January 18—Baptist Hospital Staff, 8 P. M.
- January 18—Hotel Dieu Staff, 8 P. M.
- January 19—Charity Hospital, Medical Section, 8 P. M.
- January 20—Charity Hospital, Surgical Section, 8 P. M.
- January 21—Eye, Ear, Nose and Throat Club, 8 P. M.
- January 21—New Orleans Hospital Council, Mercy Hospital.
- January 22—Pathological Conference, Hotel Dieu, 11 A. M. to 12 Noon.
- January 22—Physiology Seminar, Tulane Medical School, 5 P. M.
- January 22—Mercy Hospital Staff, 8 P. M.
- January 25—ORLEANS PARISH MEDICAL SOCIETY, 8 P. M.

During the month of December besides the regular meeting of the Board of Directors, the Society held one regular scientific meeting. Three papers were presented as follows:

Some Critical Remarks on the Whys and Wherefores of Bad Results in Certain Fractures. Illustrative Slides.

By:.....Dr. A. C. King

Discussed by Drs. Fenner, E. D. Martin and closed by Dr. King.

The Place of Dextrose Phlebotomy in Surgery.

By:.....Dr. R. A. Cutting.

Discussed by Drs. E. L. King, E. D. Fenner and closed by Dr. Cutting.

Induction of Labor with Castor Oil, Quinine and Puncture of the Membrane.

By:.....Dr. Thomas B. Ayo.

Discussed by Dr. E. L. King and closed by Dr. Ayo.

The annual election of officers for the year 1932 took place Saturday, December 12, and the following doctors were elected:

President—Dr. John A. Lanford.

First Vice-President—Dr. E. L. King.

Second Vice-President—Dr. Waldemar R. Metz.

Third Vice-President—Dr. Daniel N. Silverman.

Secretary—Dr. H. Theodore Simon.

Treasurer—Dr. Frederick L. Fenno.

Librarian—Dr. Alton Ochsner.

ADDITIONAL MEMBERS

BOARD OF DIRECTORS.

Dr. H. B. Alsobrook, Dr. Walter E. Levy.
Dr. Emmett Irwin,

These officers will be installed in office on Monday, January 11, 1932.

The Annual Dinner of the Society was held at the Chess, Checkers and Whist Club following the election on December 12.

The following applications for membership are posted:

ACTIVE MEMBERSHIP: Drs. J. W. Atkinson, W. T. Browne, W. R. Hardy, H. R. Mahorner, M. M. Odom and E. G. Walls.

INTERNE MEMBERSHIP: Drs. L. J. Bristow, Jr., L. S. Charbonnet, Jr., C. F. Gelbke, C. G. Johnson and Jeanne C. Roeling.

The following doctors subscribed to the Southern Medical Entertainment Fund:

Adiger, David, Alexander, L. W., Allen, Carroll W., Allgeyer, E. E., Alsobrook, H. B., Ayo, T. B., Aleman, Ruth.

Bacon, E. F., Bahn, Chas. A., Bailey, J. E., Baker, Wilmer, Bamber, J. M., Bass, C. C., Bass, Elizabeth, Bel, Geo. S., Bernadas, H. E., Bethea, O. W., Blackshear, S. M., Block, W. H., Bloom, Chas. J., Blum, H. N., Boebinger, M. P., Bowie, E. R., Bradburn, Muir, Bradburn, Wm. P., Brewster, W. R., Brierre, J. E., Brown, C. J., Brown, F. Temple, Brown, Geo. S., Browne, D. C., Buffington, W. R., Burns, Edgar.

Caine, Ansel, Caire, Arthur, Caire, Arthur, Jr., Calhoun, W. W., Carter, P. J., Cazenavette, L. L., Chalaron, F. J., Chamberlain, L. C., Chapman, S. A., Chetta, Frank, Cirino, J. W., Cocker, Geo. F., Cohen, Jos., Cohn, Isidore, Cole, C. Grenes, Cole, J. C., Collier, Geo. B., Crawford, Rena.

Danna, J. A., Daspit, Henry, Davidson, J. M., DeBuys, L. R., de la Houssaye, Roy E., Demp-

sey, J. Geo., Derbofen, J. C., DeVerges, Ph. C., Dismuke, L. L., Dupuy, Homer, Durel, W. J., Duval, C. W.

Elliott, J. B., Jr., Ernst, O. F., Eshleman, C. L., Eustis, Allan.

Farley, D. J., Feldner, G. D., Fenner, E. D., Fenno, F. L., Ficklen, E. A., Fisher, R. H., Fortier, L. A.

Gallo, Frank, Gately, T. T., Gelpi, Paul J., Gessner, H. B., Gillaspie, W. A., Gilpin, Florence Ruth, Gladden, A. H., Jr., Granger, Amedee, Guthrie, J. Birney.

Halsey, J. T., Hardin, Geo. L., Harris, W. H., Harrison, Roy B., Haspel, M. David, Hatch, E. S., Havard, Katherine, Hebert, J. S., Henderson, W. F., Hobson, Sam, Hochfelder, Bernard, Holbrook, C. S., Hopkins, Ralph, Hume, J. Raymond, Hume, Jos., Humphries, S. R., Hill, Lucy S., Irwin, Emmett L., Irwin, J. J., Isaacson, J. E.

Jacobs, Adolph, Jamison, Chaille, Jaubert, F. L., Jauquet, Clotilde, Johns, F. M., Kearney, H. L., King, A. C., King, E. L., Knight, H. W., Knolle, W. A.

Landfried, C. J., Landry, L. H., Lanford, John A., Larose, J. Browne, Lawson, Edwin H., Leake, J. P., LeJeune, F. E., Lemann, I. I., Levin, A. L., Levy, Louis, Lindner, H. J., Lines, D. A., Loeber, Maud, Logan, G. King, Lyons, Marcy J., Lyons, Randolph, Lyons, Shirley C.

MacLean, Basil C., Maes, Urban, Magruder, M. J., Mailhes, R. J., Mallowitz, Manni, Martin, E. Denegre, Martin, Jos. D., Matas, Rudolph, Mattingly, C. W., Menage, H. E., Menendez, J. C., Menville, L. J., Meraux, L. A., Metz, W. R., Miller, C. Jeff, Miller, H. E., Miller, M. W., Murphy, P. F., Musser, John H., Nix, J. T., Noha, Adolph.

Ochsner, Alton, O'Ferrall, J. T., O'Hara, J. A., O'Kelley, J. P., Oliphant, T. H., Oriol, R. A., Otis, W. J., Otto, H. J., Overbay, F. A.

Palermo, J. P., Patton, G. Farrar, Perkins, Wm. H., Perret, J. M., Phillips, W. D., Pigott, J. F., Points, J. Frank, Polmer, N. H.

Querens, P. L.

Rabouin, L. L., Rappannier, E. A., Rateau, Jules B., Reed, W. A., Robbins, I. L., Robin, W. H., Rodick, John C., Roeling, Wm. H., Roussel, J. N., Ryan, J. J.

Salatich, P. B., Samuel, E. C., Sanders, J. T., Scott, L. C., Seemann, W. H., Sellers, T. B., Sharp, Robert F., Silverman, D. N., Simon, Sidney K., Sims, H. Vernon, Smith, Victor C., Smith, Wilbur C., Socola, Edwin A., Souchon, Edmond, Souchon, Marion, Stone, R. E., Storek, A. H., Strong, R. A., Stulb, J. G.

Talbot, Paul T., Taquino, G. J., Tebault, C. H., Thiberge, N. F.

Unsworth, H. R.

Van Studdiford, M. T., Vidrine, Arthur, Voss, R. C., Vickery, E. B.

Wagner, W. A., Walet, E. H., Walshe, T. J., Walther, H. W. E., Warren, J. W., Weber, Arthur, Weil, Arthur I., Weis, J. D., Williamson, G. Richarda, Wills, S. H., Wilson, M. F., Wirth, W. R., Womack, David R., Wymer, J. J.

Yenni, A. S.

TREASURER'S REPORT.

Actual book balance: 10/31/31.....	\$231.52
Credits in November	544.54
	\$776.06
November Expenditures	\$433.28
Actual Book Balance 11/30/31.....	\$342.78

LIBRARIAN'S REPORT.

Eighty-eight books have been added to the Library during November. Of these 49 have been received by binding, 23 by gift, 11 from the New Orleans Medical and Surgical Journal and 5 by purchase. A notation of new books of recent date is made below.

The Library had constant visitors during the Southern Medical Association and successive meetings. Special exhibits were made in the History Room on various phases incident to the History of Medicine in New Orleans. The displays were given much interested attention by our numerous visitors.

NEW BOOKS.

Krantz—Fighting Disease with Drugs. 1931.
Jordan—Text-book of General Pathology. 1931.
Gauss—Clinical Dietetics. 1931.
Lyttle—Laboratory Pediatrics. 1930.
Helmholtz—Diseases of the Genito-Urinary System in Infancy and Childhood. 1930.
Composite Index and Simulative Supplement to Clinical Pediatrics. 1930.
von Economo—Encephalitis Lethargica. 1931.
Carter—Yellow Fever. 1931.
Randall—Surgical Pathology of Prostatic Obstruction. 1931.
Spira—Causation of Chronic Gastro-Duodenal Ulcer. 1931.
Harvey Lectures. 1929-30.
Harvey Lectures. 1930-31.
Addis—Renal Lesions in Bright's Disease. 1931.
McCarthy—Histopathology of Skin Diseases. 1931.
Rockefeller Foundation—Annual Report. 1930.

H. Theodore Simon, M. D.,
Secretary.

LOUISIANA STATE MEDICAL SOCIETY NEWS

H. Theodore Simon, M. D., Associate Editor.

PRESIDENT'S PAGE

POLITICS.

In the constitution and by-laws of nearly every Medical Society, there is an unwritten section which if written, would read: "We must never enter into partisan politics." This is a wise provision and its corollary, "We should take an active part in non-partisan politics," should be the rule for every physician, even if not of his Medical Society.

On January 19, we will elect (the primary is equivalent to election) a legislature for the next four years. My message to you this month is to consider carefully, your selection from the number offering for these important positions.

Adverse legislation to Organized Medicine is, as a rule, due to ignorance and false information. Your legislative committee and those allied with it, who have fought our battles at Baton Rouge in the past, will tell you that a doctor in the Senate or House, is a tremendous asset to them. They will likewise tell you that as a rule, a legislator will listen when he hears the voice of his family physician at home.

Therefore, where you have the opportunity, do your best on January 19 to send as many doctors to the legislature as is possible, and if you happen to be the family physician of a member of the Senate or House, get from him a promise that he will advise with you on matters affecting the medical profession before he casts his vote.

The State Medical Society has nothing to put over, but it has much to defend and there may be much to fight. United, we need have no fear; divided, or indifferent, anything may happen.

Leaving Baton Rouge and centering our attention on Washington, we find matters of most vital importance that affect the whole American medical profession. The World War Veterans' Act, as finally amended and now operating, provides for free transportation, medical service and hospital care to all veterans, regardless of their financial status, or non connection of present illness with their service during the war. It is estimated that

the cost of completing the construction program, equipment of the necessary hospitals, staff maintenance, transportation of veterans, etc., will run over a billion dollars per year.

The Dr. Shoulder's Resolution or Plan which will probably reach Congress for enactment into law, offers as a substitute for the latest amendment to the Veterans' Act, a form of insurance providing twenty dollars per week for medical service and twenty dollars per week for hospital care, enabling the veteran to remain at home under his family physician, and if necessary, his home or near home hospital.

Under the present law, red tape delay excludes all veterans from free medical service and hospital care, excepting those whose illness permits delay. The man who is acutely ill, gets no help from the Government; he must provide for himself, and we all know that acute illnesses are the most dangerous, most urgent and by far, the most frequent.

The present law provides for only a few and those not urgently in need: the Shoulder's Plan provides for all and leaves it optional with the veteran, whether he will be transported far from home and treated by strangers, or remain near and at home and treated by a physician of his own choosing. The text of the Shoulder's Plan, with discussions and explanations, appears in the *Journal of the American Medical Association Bulletin* of October, 1931.

Let me urge you to read carefully this Plan, and by your influence with your veteran friends and your local Legion Post; get their support.

The Shoulder's Plan was not inspired by a mercenary dream, but by a desire to preserve a Great American Institution and the Democratic principle of the practice of medicine in America.

I feel that I can bring to your attention at this time, no matter of greater importance to the profession, and I urge your influence be exerted among your veteran friends, for its support.

S. C. Barrow, President.

Report of the Judicial Council of the American Medical Association Concerning the Appeal of the East Baton Rouge Parish Medical Society from the Decision of the Council of the Louisiana State Medical Society.

"The Louisiana State Medical Society overstepped the provisions of the state society constitution and by-laws in peremptorily ordering the East Baton Rouge Parish Medical Society to take certain men into membership. The qualifying statement 'subject to the rules governing such society' (Chapter XII, Section 8, By-Laws of the Louisiana State Medical Society) and the statement 'Each parish society shall judge of the qualifications of its own members' (Chapter XII, Section 5) plainly indicate that the intention of the framers of the constitution and by-laws was not to compel a parish society to accept into membership one who to a certain defined percentage of members was undesirable. The rule and procedure of the East Baton Rouge Parish Medical Society is and always has been to admit members, whether by new application or by transfer, by a four-fifths majority vote. It is this procedure that is protected in Chapter XII, Section 8, of the state society by-laws by the qualifying phrase 'subject to the rules governing such society.' Protected as the East Baton Rouge Parish Medical Society is by the terms of the Louisiana State Medical Society by-laws, it is beyond the power of the council of the Louisiana State Medical Society either to compel the East Baton Rouge Parish Medical Society to accept the rejected applicants concerned in this appeal or to cancel the charter of the East Baton Rouge Parish Medical Society because they are not accepted."

DR. MATAS HONORED.

On the evening of Thursday, December 17, the seventieth birthday and the fiftieth anniversary of his graduation from the School of Medicine of Tulane was appropriately celebrated in the Hutchinson Building. Dr. Matas was presented with a Festschrift Volume, the material for which had been collected by a committee of his younger associates, consisting of Drs. Cohn, Maes, Gessner, Metz, LaRue, Fenner, Landfried, Daspit, Gage, Lemann, Bass, Miller, Ochsner, Menage, Bayon, and the late Dr. Lynch. Dr. Isidore Cohn was Chairman of this Committee. The volume has been already mentioned in the New Orleans Medical and Surgical Journal, and contains a series of scientific essays by surgical leaders throughout the world.

The speakers at the presentation exercises were Dr. C. Jeff Miller, Past President of the American College of Surgeons, Dr. John A. Lanford, President-Elect of the Orleans Parish Medical Society; Dr. H. B. Gessner, Past President of the Louisiana State Medical Society; Dr. J. M. Mason, Past President of the Southern Surgical Association; Dr. M. J. Magruder of the Board of Administrators of Tulane, and Dr. C. C. Bass, Dean of the School of Medicine of Tulane. Particularly notable was the address of Dr. Frederick L. Hoffman, the noted statistician from Newark, New Jersey. In receiving the beautiful and especially bound volume, Dr. Matas spoke with his usual felicity, and seemed deeply touched by the expressions of appreciation of him as a world famous surgeon who has, in accomplishing what he has, brought fame to the City of New Orleans.

WEBSTER PARISH MEDICAL SOCIETY.

The Webster Parish Medical Society met on December 8, 1931, at 8:00 p. m. at the Minden Sanitarium, for the last quarterly meeting of the year of 1931. The following officers were elected: President, Dr. S. M. Richardson, Minden; Vice-President, Dr. John Pugh, Cotton Valley; Secretary-Treasurer, Dr. Wilkins McDade, Minden, re-elected; Delegate to State Society, Dr. W. C. Summer, Minden; and Alternate to State Society, Dr. John Pugh, Cotton Valley. A report of cases of obstetrics was given by Dr. C. M. Baker of Minden. The Society adjourned after refreshments were served at the Minden Sanitarium.

W. McDade, Secretary-Treasurer.

CLAIBORNE PARISH MEDICAL SOCIETY.

At the annual meeting of the Claiborne Parish Medical Society, held on December 8, 1931, in Homer, Louisiana, the following officers were elected for the year 1932. President, Dr. C. A. Wolff, Haynesville; Vice-President, Dr. E. B. Middleton, Homer; Secretary-Treasurer, Dr. H. R. Marlatt, Homer; Delegate to State Meeting, Dr. J. W. Featherstone, Homer; Alternate to State Meeting, Dr. E. B. Middleton, Homer. The meeting was very interesting, with a good attendance, and followed by a banquet. The guests included Dr. S. C. Barrow, President of the Louisiana State Medical Society, Dr. P. R. Gilmer, Dr. L. W. Gorton, Dr. J. E. Knighton, Sr., and Dr. J. C. Willis, Sr., all of Shreveport.

H. R. Marlatt, M.D., Sect'y-Treas.

BI-PARISH MEDICAL SOCIETY.

The East and West Feliciana Bi-Parish Medical Society met in the Rist Hotel, Clinton, La., with Dr. S. L. Shaw, Vice-President, presiding. Election of officers for 1932 resulted as follows: Dr. S. L. Shaw, President, Dr. C. C. Blakeney, Vice-President, Dr. E. M. Toler, Secretary-Treasurer, Dr. J. W. Lea, Delegate to State Medical Society Convention, and Dr. E. M. Robards, Alternate. Scientific Program. Dr. Herbert E. Cannon of New Orleans read a most excellent paper on tularaemia. Dr. C. S. Toler of Charity Hospital, New Orleans, opened the discussion. Dr. N. F. Thiberge of New Orleans read a learned and scientific paper on allergy. Dr. J. W. Lea opened the discussion on this paper. A vote of thanks was extended to Drs. Cannon and Thiberge for the presentation of these papers. Drs. Thiberge and Cannon were elected honorary members of this Society. The next meeting will be in Jackson, the first Wednesday in February, at 7:30 p. m. in the East Louisiana State Hospital.

S. L. Shaw, President,
E. M. Toler, Secretary.

AVOYELLES PHYSICIANS HOLD INTERESTING MEETING AND ELECT OFFICERS.

The Avoyelles Parish Medical Society held its last meeting of the year at Marksville, December ninth. Dr. Walter F. Couvillon was host to the occasion. Including Dr. Emmett L. Irwin, former President of the Orleans Medical Society and Professor of Surgery in the new L. S. U. Medical Center, the society was also honored by the presence of Drs. Jack Cappel, I. F. Littell, Emeric de'Nux, Barker and Barber all of Rapides. Owing to the absence of Dr. R. G. Ducote, president and Dr. H. C. Jones, Vice-President, Dr. Kirby Roy acted as temporary chairman. The following members answered the roll call: Drs. Emil Regard, A. T. Barbin, W. F. and S. J. Couvillon, Kirby A. Roy, Sylvin de'Nux and W. A. Quirk. Through the courtesy of the H. A. Metz Laboratories of New York, motion picture films were furnished the Society demonstrating the modern "Spinal Anesthesia" technic. Dr. Barber of Alexandria, member of the medical firm of Simmons, Rand and Barber manipulated the machine, and this phase of the scientific program proved quite interesting to the doctors.

Dr. E. L. Irwin delivered a most interesting talk following the demonstration along the same subject and cited not only his experience with spinal anesthesia at the Hospital and private practice, but stated he had advised using it on himself as the substitute for a general anesthetic. Following the scientific program the following officers were elected for the ensuing year: Dr. Walter

F. Couvillon, President, Dr. H. C. Jones re-elected Vice-President and Dr. S. J. Couvillon re-elected Secretary-Treasurer. Dr. S. de'Nux, Delegate, and Dr. Kirby as his alternate were retained. Following a sumptuous supper, the Society adjourned to meet at Bordelonville aMrch 13, 1932.

S. J. Couvillon, M. D.,
Secretary.

ACADIA PARISH MEDICAL SOCIETY.

The Acadia Parish Medical Society held its annual meeting at the home of Dr. J. P. Mauboules, Rayne, La., on December 11, 1931, with the following members present: Drs. S. R. Henry, H. L. Gardiner, A. R. Morgan, J. W. Faulk, of Crowley, Louisiana, Drs. J. D. Hunter, E. C. Faulk, L. L. Kahn of Rayne, Louisiana.

The following officers were elected for the ensuing year:

President—Dr. S. R. Henry, Crowley, Louisiana.

Vice-President—Dr. E. C. Faulk, Rayne, Louisiana.

Sec.-Treas.—Dr. J. W. Faulk, Crowley, Louisiana.

Preceding the session the Society was the guest of Dr. and Mrs. J. P. Mauboules at a four-course turkey banquet with all of the necessary trimmings.

Following the business session the scientific program was in charge of Drs. J. P. Mauboules, and J. D. Hunter of Rayne, La., who discussed Medical Ethics and the Business Aspects of the practice of medicine.

Dr. L. L. Kahn of Rayne gave us a four-reel moving picture of tramatic surgery of the leg.

The Society adjourned with the understanding that we would have some scientific meetings during the following year, however, no definite date as yet was decided upon.

J. W. Faulk, M. D., Sec.-Treas.

1932 PARISH OFFICERS.

The following Parish Medical Societies have elected officers for 1932:

Beauregard Parish: President, Dr. T. A. Guilory, Merryville; Vice-President, Dr. John D. Frazar, DeRidder; Secretary-Treasurer, Dr. R. L. Love, DeRidder.

DeSoto Parish: President, Dr. W. B. Hewitt, Mansfield; Vice-President, Dr. R. A. Tharp, Mansfield; Secretary-Treasurer, Dr. D. C. McCuller, Mansfield; Delegate, Dr. R. A. Tharp, Mansfield.

Franklin Parish: President, Dr. A. J. Reynolds, Winnsboro; Vice-President, Dr. R. L. Segrest, Wisner; Secretary-Treasurer, Dr. R. E. King, Winnsboro; Delegate, Dr. R. L. Segrest, Wisner; Alternate, Dr. J. D. Rogers, Winnsboro.

Iberia Parish: President, Dr. Guy A. Shaw, New Iberia; Secretary-Treasurer, Dr. P. A. Boykin, Jeanerette; Delegate, Dr. Guy A. Shaw, New Iberia; Alternate, Dr. P. A. Boykin, Jeanerette.

Ouachita Parish: President, Dr. A. G. McHenry, Monroe; Vice-President, Dr. E. J. Young, Monroe; Secretary-Treasurer, Dr. J. W. Murphy, Monroe.

Pointe Coupee Parish: President, Dr. J. O. St. Dizier, Walls; Vice-President, Dr. J. F. Cazayoux, New Roads; Secretary-Treasurer, Dr. J. F. Cazayoux, New Roads; Delegate, Dr. R. McG. Caruth, New Roads.

Terrebonne Parish: President, Dr. R. W. Collins, Houma; Vice-President, Dr. T. I. St. Martin, Houma; Secretary-Treasurer, Dr. S. F. Landry, Houma; Delegate, Dr. H. L. Haydel, Houma; Alternate, Dr. B. B. Duval, Houma.

St. Tammany Parish: President, Dr. Lawrence Young, Mandeville; Vice-President, Dr. F. R. Singleton, Slidell; Secretary-Treasurer, Dr. J. F. Polk, Slidell; Delegate, Dr. F. F. Young, Covington; Alternate, Dr. J. K. Griffith, Slidell.

VOX SANITATIS.

A new publication is making its bow to the medical profession and citizenry of New Orleans. The first number of the first volume of *Vox Sanitatis* comes out with the announcement that subsequent editions will be issued every sixty days, and the copies of the publication will be sent to any citizen of New Orleans who requests it. The Editor of this bi-monthly bulletin of the State Board of Health is Charles J. Ball, who is to be congratulated upon the neat appearance and the careful editing of this little pamphlet. The leading article has to do with the question of the local undulant fever controversy, and more than half of this edition is taken up by a discussion of the importance of pure milk and other phases of the milk question. The rest of the bulletin points out the diseases that must be reported to the Board of Health; it discusses the death rate for the City of New Orleans and shows how large is the non-resident death rate of the City as contrasted with other cities throughout the United States; and concludes with a few abstracts and news items.

INFECTIOUS DISEASES OF LOUISIANA.

Dr. J. A. O'Hara of the State Board of Health of Louisiana, in collaboration with the United States Public Health Service, has issued the fol-

lowing weekly reports of infectious diseases in the State. Briefly abstracted these morbidity weekly reports show that for the week ending November 21 there were reported 123 cases of syphilis, 59 cases of diphtheria, 41 of gonorrhea, 22 of pneumonia, 28 of typhoid fever, 21 of pulmonary tuberculosis, and 41 of scarlet fever. One case of small pox was reported, and one of undulant fever. For the next week, ending November 28, the outstanding diseases and their numbers were: forty-nine cases of diphtheria, 47 of pulmonary tuberculosis, 40 of pneumonia, 22 of scarlet fever, 11 of typhoid fever, and 27 of cancer. There were 8 cases of small pox reported in this week. For the week ending December 5, there were reported 133 cases of syphilis, 54 cases of gonorrhea, 56 of diphtheria, 107 of pneumonia, 23 of scarlet fever, 17 of cancer, and 20 of typhoid fever. During this week there were 4 cases of small pox reported. For the fiftieth week of the year, ending December 12, the following were the important diseases reported: 54 cases of syphilis, 37 of diphtheria, 25 of malaria, 32 of pulmonary tuberculosis, 31 cases of pneumonia, 27 cases of influenza, and 22 cases of scarlet fever. During this week there were reported 33 cases of typhoid fever, a rate nearly four times the five-year average. There were also reported 3 cases of small pox, a definitely preventable disease.

HEALTH OF NEW ORLEANS.

The Department of Commerce of the Division of Vital Statistics has issued the following mortality information in the City of New Orleans. For the week ending November 21, there occurred in the city 118 deaths, giving a death rate of 13.2. Seventy-four of these deaths were in the white population, and 44 in the colored, giving a death rate of the former 11.6, and of the latter 17.0. The infant mortality rate in this particular week was extremely low, only 7 deaths in children under one year of age being reported, giving a rate of 39. For the week ending November 28, the death rate 14.3 was still well below the average for the first 48 weeks of last year that is, 1930. During this week there were 82 deaths in the white and 46 deaths in the colored, with a rate of 12.8 in the white and 17.8 in the colored population. The infant mortality rate had increased slightly, going up to 67, as a result of 12 children under one year of age dying.

The report for the week ending December 5 is not available, but the report ending the week December 12 shows that there were 136 deaths in New Orleans, giving a total death rate of 15.2, the total deaths being made up of 78 white and 58 colored, the death rate of the latter being

22.5. The infant mortality rate of this week was 73, as a result of deaths of 13 children under one year of age. The death rate for the year 1931, including the past 50 weeks, is still considerably lower than the rate for 1930.

NEWS NOTES.

The Surgeon General of the United States Public Health Service has ordered Surgeon T. B. H. Anderson, Medical Director L. L. Lumsden, Senior Bacteriologist Sara E. Branham, and Physicist James E. Ives to New Orleans to attend a meeting of the American Association for the Advancement of Science, December 28, 1931, to January 2, 1932.

Dr. Paul Tilman Talbot, Assistant Professor of Gynecology in the Graduate School of Medicine of The Tulane University of Louisiana, attended a conference on arthritis held at Pittsburgh, Pa., under the auspices of the American Society of Arthritis December 2-7, 1931.

Dr. Isidore Cohn, Professor of Clinical Surgery in the Graduate School of Medicine of The Tulane University of Louisiana, attended a meeting of the Southern Surgical Association held at White Sulphur Spring, Va., December 8-11, 1931, and presented a paper on "Skeletal Defects in Anomalies."

The Academy of Medicine of Cleveland has planned this year to give a series of four lectures through the Health Education Foundation. These lectures are free to the public and are given Sunday afternoon during the course of four months in the winter. This is a most laudatory and commendatory effort to educate the medical public. The lectures are given by outstanding men in the city and last year were enthusiastically attended by the laity of the city.

ANNUAL MEETING OF THE RADIOLOGICAL SOCIETY OF NORTH AMERICA.

The seventeenth yearly meeting of the Radiological Society of North America was held in St. Louis, the first week in December. A magnificent program of some 165 scientific presentations was prepared by the committee in charge of the program. Several of the Louisiana State doctors took part in this program. Dr. Leon J. Menville opened the discussion of a paper on general medical

economics as related to the practice of radiology, and Dr. Amedee Granger a discussion on a paper on the indications for irradiation treatment of inter-uterine treatment. Dr. Menville also led a symposium on diseases of the thyroid considered from the point of view of the roentgenologist, the surgeon, the internist, and medicine. Dr. A. Jerome Thomas of Shreveport read a paper on "The Radiographic Diagnosis for Early Pregnancy." Dr. Leon J. Menville, Dr. J. N. Ane, and S. N. Blackberg presented a paper on "X-Ray Experimental Studies Showing that Rachitic Rats with Healed Bone Lesions Continue to Show Alterations in Their Gastro-Intestinal Tract."

DALLAS SOUTHERN CLINICAL SOCIETY.

Dr. G. F. Goff, Chairman of the Publicity Committee of the Dallas Southern Clinical Society, which will meet in Dallas, March 28 to April 1, 1932, reports that their program has been very nearly completed. Dr. Edward H. Cary, President of the American Medical Association, will deliver a welcome address at the first evening's meeting. Dr. Thomas R. Brown, Professor of Gastro-enterology, John Hopkins University, will speak on "The Story of Digestion," and Dr. Frank L. Lahey will talk on "The Thyroid Gland." The eminent and well known author, Dr. Jos. Collins, will speak on "How Can We Stem the Rising Tide of Insanity in this Country." On Tuesday evening, there will be a symposium on "Diseases of the Biliary Tract," which will be led by Dr. Thos. McCrae of Philadelphia, Dr. J. Shelton Horsley of Richmond, and Dr. M. C. Sosman of Boston. Wednesday evening will be devoted to a clinic dinner, and Thursday evening two symposia will be held. The first on "Arthritis" will be led by Dr. John A. Kolmer of Philadelphia, and the other on "Conservation of Maternal Health" will feature Dr. Edward H. Richardson of Baltimore. Round table luncheons will be held every day, and on the last two days of the week hospital ward rounds and surgical operative clinics.

These high spots in the program arranged by the Dallas Southern Clinical Society indicate just how successful the doctors of Dallas have been in their making available to the medical profession of the South post graduate teaching. The various committees and those in charge of the arrangements are to be congratulated for what they have accomplished.

ALVARENGA PRIZE OF THE COLLEGE OF PHYSICIANS OF PHILADELPHIA.

The College of Physicians of Philadelphia announces that the next award of the Alvarenga Prize, being the income for one year of the bequest of the late Senor Alvarenga, and amounting to about Three Hundred Dollars, will be made on July 14, 1932, provided that an essay deemed by the Committee of Award to be worthy of the Prize shall have been offered.

The Alvarenga Prize for 1931 has been awarded to Dr. Edgar S. J. King, Melbourne, Australia, for his essay entitled: "The Nature of the Stroma of the Ovary."

John H. Girvin, Secretary.

AMERICAN ASSOCIATION FOR THE STUDY OF GOITER.

The American Association for the Study of Goiter again offers an award of Three Hundred Dollars (\$300.00) for the best essay based upon original research work on any phase of goiter presented at their Annual Meeting in Hamilton, Ontario, Canada, June 14, 15, and 16, 1932. It is hoped this offer will stimulate valuable research work, especially in regard to the basic cause of goiter.

Competing manuscripts must be in English and in the hands of the Corresponding Secretary, J. R. Yung, M. D., Rose Dispensary Bldg., Terre Haute, Ind., not later than March 15, 1932. Manuscripts arriving after this date will be held for the next year or returned at the author's request.

J. R. Yung, M.D., Corresponding Sect'y.

AMERICAN BOARD FOR OPHTHALMIC EXAMINATIONS.

The American Board for Ophthalmic Examinations will hold an examination in New Orleans on Monday, May 9, 1932, at the time of the meeting of the American Medical Association.

Necessary applications for this examination can be procured from the Secretary, Dr. William H. Wilder, 122 South Michigan Avenue, and should be sent to him at least sixty days before the date of the examination.

Wm. H. Wilder.

WOMAN'S AUXILIARY.

In New Orleans there is gloom left behind the meeting of the Southern Medical Association when one realizes that the long anticipated event has come and gone, but also there is satisfaction in the thought of the many new contacts that were made and the numerous avenues that have been opened up for permanent friendships and understanding. So our au revoir to the 1931 meeting is made with these mingled feelings. We, in New Orleans, hope that our sisters left with the same reluctance we felt in having them go and that they, too, are experiencing the state of anticipation that we all have towards having them again with us in the near future. The registration of the women was large, rather more numerous than was expected and all the entertainments planned were attended by a great number. A meeting of the Woman's Auxiliary to the Southern Medical Association started the convention, followed by a luncheon where we were able to get into close touch with our National President, the President of the Southern Medical Association, and the different officers, which was a privilege we were deeply appreciative of. The President of the Auxiliary to the Orleans Medical Society delivered the address of welcome which follows:

President's Address.

Madam President—Fellow Members of the Woman's Auxiliary to the Southern Medical Association:

It affords me great pleasure to welcome you ladies of our beloved Southland to old New Orleans.

As you know New Orleans is unique in that it is not a typical American city. It is rich in local color and romance, legend and historic lore. It is also famous for its genuine hospitality, gaiety, and open heartedness, and in the few days that we are privileged to have you among us we want to show you something of our friendship and of our city.

New Orleans has been the host of many medical conventions—I say host because in the past it has been the doctors who have extended the invitation and prepared for your entertainment. But this year we are proud to tell you that you not only have a host but also a hostess in the Woman's Auxiliary to the Orleans Parish Medical Society.

It is interesting to note that in 1924 the Auxiliary to the Southern Medical Association was organized here in New Orleans, and it is a happy coincidence that five years later our president, Mrs. S. A. Collom, was organization chairman and was instrumental in having Louisiana form an auxiliary.

You may know that with all these happy associations how glad we are to have you as our guests today, and we hope that the Woman's Auxiliary to the Southern Medical Association coming back to the place of its birth will make this a glorious homecoming, one that will be long remembered, and oft repeated.

And on behalf of our home organization we wish to present you with a token of our high esteem.

After the luncheon a number of our guests attended the meeting of The Garden Society and in the evening our time was taken up by the President of the Southern Medical Association's Address and reception and dance in his honor. Thursday the Vieux Carre more than held its own and the evening entertainment and reception at the Auditorium filled in untaken time. Friday a most enjoyable trip was taken to the Gulf Coast, which from rumors proved to be all that could be anticipated of the beautiful Riviera of the South. With these remembrances comes a feeling of such good fellowship and willingness to do and remember always our friends made during this memorable meeting of 1931.

The Auxiliary to the Orleans Parish reports that its membership has grown to such an extent that it is now necessary to have a designated place for the monthly meetings. This decision was reached reluctantly, for we have all enjoyed the hospitality of our members who have generously thrown open their houses, but we feel that our choice is an excellent one for we have been fortunate enough to secure the really beautiful Orleans Club, and in the future will have our meetings there. A large membership heard Dr. Harry B. Levey, Director of the New Orleans Child Guidance Clinic, give a most interesting and needed talk on "The Role of the Doctor's

Wife in Mental Hygiene of Childhood." This interesting program closed with unusually beautiful music and the finale was the social hour afterwards.

The State Society held an Executive Meeting in New Orleans directly after the Southern Meeting, and it was deemed interesting to publish the highlights of that gathering. The usual reports were read and approved. The historian, Mrs. H. B. Gessner, told of the claim Louisiana has to having had the first Caesarean section performed in this country. An interesting motion was made and carried that the Executive Board meeting would be held in the morning, and that the open meeting and election of officers would take place around the tables at luncheon on Monday, preceding the American Medical Association Convention. As it would be impossible to have a nominating committee function between the Executive and open meeting, motion was made and carried that the nominating committee be elected at this meeting. An Executive Committee was elected to confer with the President at any time deemed necessary by her. The meeting was adjourned and the members went to a luncheon given in honor of Dr. Keyes of New York.

Jambalaya.

Mrs. A. B. McGlothlan, our National President, very generously gave us some of her time by attending the State Executive Board Meeting, and also by advising us, at an extra meeting, of our duties and responsibilities for the coming American Medical Association Meeting. Mrs. McGlothlan proved herself to be more than worthy of the honor bestowed on her when she was elected President, for her gracious personality and charming manners linger with us and still will for many months.

We regret to report that with the exception of the Auxiliary to The Orleans Parish our other Auxiliaries have not been heard from this month and trust in the New Year each month will bring us at least some small news items.

M. H. Musser,
State Publicity Chairman.

MISSISSIPPI STATE MEDICAL ASSOCIATION NEWS

L. S. Lippincott, Editor

Jacob S. Ullman, Associate Editor

D. W. Jones, Associate Editor

THAT WE MAY KNOW EACH OTHER BETTER.

Dr. Willie Harvey Watson was born at Virgil, Rankin County, Mississippi, February 20, 1884. He received his preliminary education in the public and high schools of Rankin County, and his degree in medicine from Tulane University in the class of 1910. Licensed to practice medicine in Mississippi, he located at Fannin on June 1, 1910, moved to Florence September 1, 1911, to Brandon April 1, 1916, and became associated with the Pearl River Lumber Company, Pelahatchie, November 1, 1929. He moved his family to Pelahatchie January 1, 1930.

Dr. Watson was appointed a member of the Mississippi State Board of Health on January 1, 1917, and served continuously in this capacity until May 1, 1930, most of the time being a member of the executive committee of the board.

While practicing at Florence, Dr. Watson was local surgeon for the G. and S. I. R. R. Co., and at Brandon was local surgeon for the A. and V. R. R. Co., and the I. C. R. R. Co. He is at present local surgeon for the I. C. R. R. Co. at Pelahatchie.

Dr. Watson is a member of the Central Medical Society, the Mississippi State Medical Association, the Southern Medical Association, and a fellow of the American Medical Association. He is an elder in the Presbyterian Church, a Mason, a Knight of Pythias, and a member of all local civic organizations.



WILLIE HARVEY WATSON, M. D.
Pelahatchie, Mississippi
Councilor, Fifth District
Mississippi State Medical Association

7:30 p. m.; Staff of Meridian Sanitarium, 7 p. m.

January 5: Staff of King's Daughters' Hospital, Brookhaven, 7:30 p. m.

January 6: Staff of Chamberlain-Rice Hospital, Natchez; Staff of Vicksburg Infirmary, 7:30 p. m.;

Staff of Rush's Infirmary, Meridian, 7 p. m.; Staff of Dr. F. G. Riley's Children and Maternity Hospital and Clinic, Meridian, 7 p. m.

January 7: Pike County Medical Society, McColgan Hotel, McComb, 7 p. m.

January 8: Staff of Anderson Infirmary, Meridian, 7 p. m.

January 11: Staff of Vicksburg Sanitarium 6:30 p. m.

January 12: Staff of Natchez Sanatorium, 7 p. m. Issaquena-Sharkey-Warren Counties Medical Society, Y. M. C. A., Vicksburg, 7 p. m.; Winston County Medical Fraternity, Louisville.

January 13: Staff of King's Daughters' Hospital, Greenville, 7 p. m.; Winona District Medical Society, Kosciusko, 1:30 p. m.

January 14: Staff of Aberdeen Hospital, 8 p. m.; Staff of Vicksburg Hospital, 7:30 p. m.; Homochitto Valley Medical Society, Natchez, 2 p. m.

January 15: Natchez Medical Club, 1 p. m.

January 19: Staff of Natchez Charity Hospital, 8 p. m.; Central Medical Society, Jackson, 7 p. m.

February 1: Staff of Jackson County Hospital, 7:30 p. m.; Staff of Meridian Sanitarium, 7 p. m.

February 2: Staff of King's Daughters Hospital, Brookhaven, 7 p. m.

February 3: Staff of Chamberlain-Rice Hospital, Natchez; Staff of Vicksburg Infirmary, 7:30 p. m.; Staff of Rush's Infirmary, Meridian 7 p. m.;

CALENDAR.

January 1: Natchez Medical Club, 1 p. m.

January 4: Staff of Jackson County Hospital,

Staff of Dr. F. G. Riley's Children and Maternity Hospital and Clinic, Meridian, 7 p. m.

February 4: Pike County Medical Society, McCalgan Hotel, McComb, 7 p. m.

February 5: Natchez Medical Club, 1 p. m.

February 9: Staff of Natchez Sanatorium, 7 p. m.

February 9: Issaquena-Sharkey-Warren Counties Medical Society, Vicksburg, Y. M. C. A., 7 p. m.; Winston County Medical Fraternity, Louisville.

February 10: Staff of King's Daughters' Hospital, Greenville, 7 p. m.; Staff of Vicksburg Sanitarium, 6:30 p. m.

February 11: Staff of Aberdeen Hospital, 8 p. m.; Staff of Vicksburg Hospital, 7:30 p. m.

February 12: Staff of Anderson Infirmary, 7 p. m.

February 16: Staff of Natchez Charity Hospital, 8 p. m.; Central Medical Society, Jackson, 7 p. m.

February 18: East Mississippi Medical Society, Elks Club, Meridian, 3 p. m.

February 19: Natchez Medical Club, 1 p. m.

FROM OUR PRESIDENT.

Members of Mississippi State Medical Association:

At our last meeting in Jackson there were a number of changes made in the By-Laws. There were also introduced several proposed changes to be made in the Constitution. A vote on these proposed changes will of course not be made until our next meeting. Chapter IX of our By-Laws was amended by the addition of Section 9, which reads as follows: "The committee on Constitution and By-Laws shall consist of three members to be appointed by the President, one for one year, one for two years, and one for three years, and thereafter one each year for three years. This committee shall have referred to it all suggested amendments and changes in the Constitution and By-Laws of the Association. Its chairman shall report promptly its actions on all measures to the House of Delegates." I have appointed on this committee, Dr. W. H. Frizell, Brookhaven, Dr. J. S. Ullman, Natchez, and Dr. S. W. Johnston, Vicksburg.

I am going to urge every member of this association to read carefully our Constitution and By-Laws (I doubt very seriously if many of us have done this) and if any of you have any suggestions to make for the good of the association and the profession please write to the com-

mittee at once so that it will be able to give them due consideration before the meeting in the spring. I will suggest that you mail these to Dr. Frizell of Brookhaven, who is the chairman of this committee.

My reason for writing this is not that I think anything should be changed but there may be some of you who have some ideas which you would like to place before the association, and this committee will be only too glad to give such suggestions early consideration.

John C. Culley, President.

REPORTS OF SECRETARIES

Dr. T. M. Dye, Secretary, Mississippi State Medical Association, has distributed to the secretaries of the component Medical Societies of the State Association blanks for reporting to him the members of each Society. With these blanks are two letters of interest to all members of the Association as well as to the Secretaries to whom they are addressed. They are as follows:

"My Dear Doctor:

"Enclosed I am handing you blanks for your medical society report and letter accompanying same. At the 1931 meeting of the House of Delegates a By-Law was adopted making members delinquent whose dues were not paid before February first. This is official and the State Secretary has no option in this matter.

"The following proposed changes in the Constitution were introduced at Jackson at the 1931 meeting and should come up for final disposition at the 1932 meeting:

"Article III, after the word 'county' add 'or district.'

"Article IV, Section 2. Delete 'county' in the third line.

"There was also introduced at the 1931 meeting, but too late for passage, the following proposed change in the By-Laws:

"Amend Chapter VI, Section 2, by adding after the word 'nine' 'members of the House of Delegates,' etc.

"This should come up at the first session of the 1932 meeting of the House of Delegates.

"For the first time certificates of membership cards are to be issued to the members, so please exercise the utmost care to have the initials and the spelling of names correct. This is very important.

"Another matter of importance done at the 1931 meeting was the passage of a by-law pro-

viding that the Secretaries of local societies SHOULD NOT PAY STATE ASSOCIATION DUES. This is important and should not be overlooked.

"This change is effective January first, 1932, so in reporting for your Society include your own name in the alphabetical list of members but do not send any dues for your membership.

"Sincerely your friend,

(Signed) T. M. Dye, Secretary."

"To County Secretaries:

"My Dear Doctor:

"I am enclosing blank for your annual report to the State Secretary. Our By-Laws specifically provide that this report, accompanied by the annual dues, be made not later than February the first.

"This law has not been any too well observed in the past, and this failure has often caused embarrassment and chagrin to the members of the delinquent society.

"Through a ruling of the House of Delegates of the American Medical Association, State Secretaries must make their reports to the national organization in March, or suffer in their representation in the national House of Delegates.

"The enclosed blank was prepared with great care and provides for information that the State Secretary must have. Please see that all information needed is given.

"Arrange your list of members **alphabetically**, using a typewriter where possible. In the column giving 'office in Society' all that is required are 'Pres.', 'Sec.', 'Delegate.' The column for 'Remarks' is for use in the State Secretary's office, so please do not use this column. Kindly note the blanks on reverse side of sheet and furnish the data required.

"I thank you for your helpful consideration in the past and assure you that it is greatly appreciated.

"Truly your friend,

(Signed) T. M. Dye, Secretary."

"My Dear Doctor:

"The Council recently passed the following resolution: 'Secretary Dye was requested to again remind the local societies, through the secretaries, that dues MUST BE PAID by February 1. Failure of a local secretary to file his report by February 1 automatically suspend that Society from membership until such report is filed, and

the members thereof would be ineligible for defense by the Council during that interval. It is urged that dues be collected by January 1 as far as possible.'

"Cordially yours,

(Signed) T. M. Dye, Secretary."

TIPPAH COUNTY.

Dr. James I. Mayfield, Blue Water, has recently been appointed local surgeon for the G. M. & N. R. R.

We had a fairly good representation at Oxford on Culley Day. Drs. Mayfield and Mauney, Blue Mountain, R. M. Adams, Hubert Summer and C. M. Murry of Ripley being there.

Drs. Mayfield, R. M. Adams, and Murry were in New Orleans in attendance at the Southern Meeting.

The jinx seems to have it in for Tippah Medical families. Mrs. Giles, wife of Dr. J. H. Giles, is in Memphis with a badly broken elbow, also fracture of thigh due to a fall. Dr. and Mrs. R. M. Adams and son, Dr. Milton, are sick in bed at their home.

Mrs. Roy Carnal, daughter of the late Dr. T. L. Randolph, and god-daughter of Dr. W. M. Murry, has been taking a rest cure in bed for some days. All these parties live in Ripley.

C. M. Murry, County Editor.

HISTORY.

The following abstracts from the history of the Mississippi State Medical Association are being printed in order that members of the Association may make any suggestions or corrections desirable before final publication. Please read carefully and then communicate with Dr. E. F. Howard, Historian, if you feel that any changes should be made.

1919—Hattiesburg was the scene of the 1919 session, the second day's meetings being held in the Pase Hospital at Camp Shelby. More than two hundred and fifty members were in attendance, a good average for such a location, and happy indeed were the greetings between men not yet quite accustomed to the fit of civilian clothing, while here and there some men in olive drab, who had not yet secured his release, was a center of interest and sympathy. The Association presented itself with a service flag which was unfurled by Dr. C. D. Mitchell of Jackson, and a response was made on behalf of the service men by Dr. W. W. Crawford of Hattiesburg.

1920—The records of 1920 show little of interest, beyond public health matters. The tide of liberality on the part of the Legislature had continued, so that the Legislative Committee was able to report nearly a million and a half dollars for permanent improvement at the Tuberculosis Sanatorium and a large increase in the appropriation for its support; and an increase from ninety-five to three hundred thousand dollars, for the two-year period, in the appropriation for the Board of Health. The Executive Officer of the Board acknowledged the obligation in these words: "The splendid results which have been achieved in medical legislation for the last ten years have been made possible through the co-operation and loyal support of the medical profession."

1921—This success seems to have satisfied the Association's appetite for accomplishment, or perhaps the efforts required exhausted its energy, for we find singularly little of interest in the records of the next three years. So much is this the case that the Secretary's

1922—Report in 1922 is limited to the simple statement: "The best possible report that I could make to you is that there is nothing to report," a statement that, while apparently entirely accurate, reflects very little credit on the organization. It may be, however, that this was a period of incubation of an idea that showed its first symptoms.

1923—In 1923, when a committee of five was appointed to consider the proposition of joining the Louisiana State Medical Society in the purchase of the **New Orleans Medical and Surgical Journal**. This committee was given full power to act for the Association but apparently did nothing, at least there are no records to show that it acted in any way, but the idea was evidently not entirely displeasing to the members, for the

1924—Following year when the Louisiana Society, which in the meantime had purchased the **Journal**, invited the Mississippi Association to abandon the **Transactions** and adopt the **Journal** as its official organ, another committee with like powers promptly accepted the invitation.

ATTENDANCE AT MEETINGS OF THE MISSISSIPPI STATE MEDICAL ASSOCIATION.

Place of					
Year	Meetings	Members	Guests	Total	Membership
1904—Jackson		83	7	90	.....
1905—Jackson					
1906—Jackson		111	22	133	.....
1907—Gulfport		251	22	273	.....
1908—Natchez		161	29	190	900
1909—Jackson		330	14	344	1006
1910—Oxford		192	14	206	978
1911—Jackson		275	10	285	1008
1912—Jackson		241	12	253	946
1913—Vicksburg		253	19	272	1039
1914—Columbus		169	15	184	989
1915—Hattiesburg		256	15	265	1029
1916—Greenville		208	22	230	995
1917—Jackson		293	8	301	917
1918—Jackson					872
1919—Hattiesburg		270	3	273	1028
1920—Jackson		241	11	252	1018
1921—Laurel		181	6	187	926
1922—Brown's Wells		204	7	211	918
1923—Vicksburg		287	20	307	987
1924—Jackson					982
1925—Biloxi					951
1926—Jackson		302	.....	.....	962
1927—Jackson		252	.....	.....	1022
1928—Meridian		249	.....	.....	1042
1929—Gulfport		254	.....	.....	1009
1930—Vicksburg		260	.....	.....	1028
1931—Jackson		387	26	413	977x

1. Association reorganized in April, 1903. Very small membership, and no membership records.

2. No record.

3. xMembership December 1.

TRI-COUNTY MEDICAL SOCIETY.

(Copiah-Lincoln-Walthal-Lawrence)

The Tri-County Medical Society met in Brookhaven, Tuesday, December 8, in annual session with Dr. F. E. Collins in the chair. After the annual banquet served in Vivian's Cafe, the members repaired to the City Hall where the meeting was called to order and the president gave his address touching on State Medicine, Community Hospitals and Medical Ethics.

Routine matters of local interest were considered and one new member, Dr. R. H. Johnson, acting health officer of Lincoln County, was received.

Suitable resolutions were offered and passed on the illness of Secretary O. N. Arrington, J. M. Dampeer, D. W. Magee, the death of one member,

R. A. Segrest, Port Gibson, and the death of Mrs. C. R. McKee of Hazlehurst. The secretary was instructed to write to the proper ones.

On motion of the secretary pro-tem, W. H. Frizell, the following was adopted: "Resolved, That the Tri-County Medical Society heartily indorses the Community Hospital idea as promulgated by the Mississippi State Medical Association, and that we pledge ourselves to use our influence with the incoming administration to assist in affecting such legislation as the wisdom of the constituted committee may suggest to the Legislature at its next sitting."

Dr. J. T. Butler, Brookhaven, one of the oldest living practitioners in the State was made a Life Honorary Member and proposed for the same honor to the State Association.

The annual election of officers was then held with these results: President, Dr. A. B. Harvey, Tylertown; Vice-Presidents, Drs. J. H. Beavers, R. E. Higdon, R. Reagan, and J. W. Wilson; Secretary-Treasurer, Dr. H. R. Fairfax, Brookhaven; Censor for three years, Dr. B. S. Waller, Silver Creek; member of Medico-Legal Committee, Dr. W. H. Frizell, Brookhaven; Delegates, Drs. W. L. Little, O. N. Arrington, R. E. Sylverstein and T. F. Conn; Legislative Committee, W. L. Little, O. N. Arrington, A. B. Harvey and T. F. Conn.

The Society adjourned to meet March 8, 1932, in the Copiah-Lincoln Junior College, Wesson, Miss.

We regret to report the continued illness of Dr. J. M. Dampeer, Crystal Springs, Dr. D. W. Magee, Wesson, Route No. 1, and Dr. O. N. Arrington, Brookhaven. The latter is now in the K. D. Hospital, Brookhaven.

The profession extends to Dr. C. R. McKee, Hazlehurst, profound sympathy in the loss of his devoted wife recently. She was before her marriage Miss Laure Peets, whose family name is a household word is central Mississippi.

Drs. O. N. Arrington, J. T. Butler, H. R. Fairfax and R. H. Johnson, Brookhaven, attended the recent meeting of the Southern Medical Association.

The Staff of the Brookhaven King's Daughters' Hospital held its regular monthly meeting Tuesday, December 1, at which injuries of the abdomen were discussed. A case report by Dr. Collins showing disastrous consequences following seemingly trivial injury to the abdomen in an automobile accident, patient dying suddenly without apparent cause.

W. H. Frizell, County Editor.

MONROE COUNTY.

When I wrote you before I told you that Dr. J. A. Dilworth of Aberdeen was sick in the home of his sister, Mrs. W. J. Thompson of Amory. Death claimed him on the morning of November 12. Dr. Dilworth was a very unusual character. He was true in every sense to his ideals of life and duty. He was far above the average in intelligence and was splendidly equipped for the practice of his profession. He began practice in a country town in Chickasaw county and remained there for about seven years. He then did post-graduate work in New York and then located in Aberdeen, near which city he had been reared. He lived and worked there until his death. He was about seventy years old when he died. He was a princely gentleman—one who abhorred display and sham. He made and kept many true friends and no enemies. He was never known to refuse his services because of inability to pay. He rarely made any effort to collect a fee for service rendered. Perhaps there was more money due him for medical care at the time of his death than to any man who ever practiced medicine in Monroe county. And yet he prospered in his life work. He married late in life but his wife died several years before he did. They had no children. All honor to his memory—he will be and is greatly missed by a host of friends. A large clientele is bereft of his tender concern and efficient care. Dr. J. B. Sims had died in Aberdeen just a few months ago. As I stated in my last letter Dr. B. C. Crisler had just located in Aberdeen and two of our splendid doctors living in smaller communities in this county have moved to Aberdeen since Dr. Dilworth died. They are Dr. C. B. McCown who formerly lived at Prairie, and Dr. G. T. Tubb who lived at Athens. Both these gentlemen are splendid doctors and fine gentlemen. So Aberdeen, perhaps, will be well supplied with medical talent but what of the smaller communities from which these doctors moved?

The Thirteen-County Medical Society will hold its last quarterly meeting for the year in Tupelo on next Tuesday, December 15. Big men and big things are on the program. Those who may go have a treat in store—those who do not go will miss much. I may have a report for some future number of the Journal.

Wasn't the meeting a big success and didn't Dr. Underwood do his friends and his state honor?

Yule time comes on apace. May you and all your readers have just such joy and happiness as your hearts may crave.

Hello, Santa Claus! Goodbye "Thirty-one"—howdy, "Thirty-two."

G. S. Bryan, County Editor.

ITTAWAMBA COUNTY.

We have five active and two part time physicians in our county—all good men.

When I began to practice medicine in 1904, we had 22 active doctors in this county—population then 10,000 or 11,000 and now 18,000. So we do not fish much but when we do go, we have a good time eating fish and drinking strong coffee, etc.

Dr. J. H. Stone and family moved to Jackson recently.

Dr. W. T. Collum lost his wife a few weeks ago and his health is poor, causing him to have to be out of harness lots of the time.

If anyone needs stove wood we can fill your orders.

Hope to see a good number of our boys at Tupelo this month. In offering an apology, I must say I am very sorry that I have been so negligent.

N. W. Nanney, County Editor.

YAZOO COUNTY.

I am sorry I missed November report. Have been confined to bed, hospital and house, for the last two months. Am up now and I think improving. So do not know much about Yazoo doctors. I hope to be at work early in the new year and able to attend meetings. With best wishes to all for a better year, I am,

C. M. Coker, County Editor.

WASHINGTON COUNTY.

Dr. Virgil Payne of Memphis, after a severe illness, has returned to Greenville, and is rapidly recovering. He is visiting in the home of his parents, Dr. and Mrs. A. G. Payne.

Dr. H. A. Gamble of Greenville, read a paper before the General Clinical Session of the Southern Medical Association in New Orleans November 18 on "The Treatment of the Potentially Infected Abdominal Wound and Its Relation to the Mortality of Acute Infections of the Abdomen."

Dr. T. F. Willson of Arcola, Dr. and Mrs. W. P. Shackelford of Hollandale, Dr. D. C. Montgomery of Greenville, Dr. John W. Shackelford of Greenville, Dr. F. M. Acree of Greenville, Dr. John Fair Lucas of Greenville and Dr. H. A. Gamble of Greenville, were in attendance at the meeting of the Southern Medical Association in New Orleans.

The doctors of Washington County feel their loss very greatly in the death of Dr. Martin of Indianola. His genial presence enlightened the

meetings of the Delta Medical Society as did the presence of no other member. He was one of the founders of this Society and he never missed a meeting. The Society, Indianola, and the medical profession have suffered a distinct loss in his death.

Dr. John Fair Lucas of Greenville, read a paper before the Section on Obstetrics of the Southern Medical Association, November 20, on "Ablatio Placentae."

Miss Evanelle Lewis, daughter of Dr. and Mrs. T. B. Lewis of Greenville, was married to Mr. James Franklin of Jackson, on November 7. They are making their home in Jackson.

Dr. H. A. Gamble of Greenville attended the meeting of the Southern Surgical Association at White Sulphur Springs, West Virginia, December 8 to 12.

Dr. J. A. Beals, Tulane, Class of 1919, has become associated with Drs. Gamble Bros. and Montgomery in charge of the Department of Radiology. Since graduating from Tulane, Dr. Beals has practiced his specialty in Fort Wayne, Indiana, Chicago, Ill., Jacksonville, Fla., Chattanooga, Tennessee, and comes to Greenville from Akron, Ohio. He is a member of the American Medical Association, Southern Medical Association and the Radiological Society of North America.

F. M. Acree, County Editor.

ADAMS COUNTY.

Drs. R. D. Sessions, L. S. Gaudet, and L. Wallin attended the meeting of the Southern Medical Association in New Orleans, November 17 to 19.

Dr. and Mrs. Edwin Benoist are receiving congratulations on the arrival of a son, born to them in December. He has been named Edwin Eugene Benoist.

Dr. J. B. McLaurin recently returned from a stay of a few days in New Orleans.

Mr. and Mrs. Proby Sessions, St. Joseph, Louisiana, recently visited Mr. Session's parents, Dr. and Mrs. R. D. Sessions.

The newly organized Auxiliary of the Homochitto Valley Medical Society held its first meeting at a luncheon on November 3. Out of town delegates from five counties attended.

Mrs. W. K. Stowers, Natchez, entertained on November 4, with a dinner bridge complimentary to Dr. Stowers on the happy occasion of his birthday.

L. Wallin, County Editor.

CENTRAL MEDICAL SOCIETY.

The annual meeting of the Central Medical Society was held Tuesday night, December 15, at the Edwards Hotel. An invitation was extended to the members of the Issaquena-Sharkey-Warren Counties Medical Association to attend this meeting.

WARREN COUNTY.

Dr. W. H. Parsons attended the meeting of the Southern Surgical Association at White Sulphur Springs, West Virginia, in December.

Drs. L. J. Clark, Guy C. Jarratt, Leon S. Lippincott, F. M. Smith, A. Street and W. G. Weston attended the meeting of the Southern Medical Association at New Orleans in November.

Edley H. Jones, County Editor.

COMMUNICABLE DISEASES.

The report of the Bureau of Communicable Diseases of the Mississippi State Board of Health for the month of October, 1931, shows typhoid fever, 114; smallpox, 77; diphtheria, 725. Enough said! There were also 229 cases of scarlet fever, 414 cases of pellagra, and 99 cases of tuberculosis. The per cent of physicians reporting during October was 98.7.

NORTH MISSISSIPPI MEDICAL SOCIETY.

A meeting of the North Mississippi Medical Society was held at Water Valley, Tuesday, December 15.

Doctors from Lafayette County attending the meeting of the Southern Medical Association in New Orleans were Drs. John C. Culley, B. S. Guyton, E. S. Bramlett, W. W. Phillips, and A. H. Little.

Dr. P. L. Mull, dean of the University Medical School, recently attended the annual meeting of the Association of American Medical Colleges at New Orleans.

A. H. Little, Secretary.

JOINT MEETING.

A joint meeting of the Fifth District Medical Society of Louisiana and the Issaquena-Sharkey-Warren Counties Medical Society was held at Vicksburg on Tuesday, December 8, at the Y. M. C. A. The meeting opened with a banquet, Dr. J. B. Benton, President of the Issaquena-Sharkey-Warren Counties Medical Society, presiding.

Short talks were made by Dr. A. D. Tisdale, Monroe, Louisiana, President of the Fifth District Medical Society; Dr. C. L. Green, Utica, President of the Central Medical Society, and Dr. John Dar-

lington, Past President of the Mississippi State Medical Association. An Orchestra furnished music during the banquet and a quartet, consisting of Dr. I. C. Knox, Dr. G. P. Sanderson, Mr. H. P. Grant, and Captain Leonard Van Egmond, gave several selections. The Misses O'Leary, sisters of the late Dr. J. P. O'Leary, former member of the Society, furnished beautiful floral table decorations.

The scientific program was presented as follows:

A Discussion of Certain Phases of Chronic Congestive Heart Failure—Dr. Chaillé Jamison, New Orleans.

The Treatment of Arthritis With Special Reference to Prevention and Correction of Deformity.—Dr. Henry W. Meyerding, Rochester, Minn.

Secondary Anemia; Present Status of Dietary and Inorganic Therapy.—Dr. W. H. Olmstead, St. Louis.

This being the annual meeting of the Issaquena-Sharkey-Warren Counties Medical Society, officers for the year 1932 were unanimously elected as follows: President, Dr. H. S. Goodman, Cary; Vice-President, Issaquena County, Dr. J. B. Benton, Valley Park; Vice-President, Sharkey County, Dr. W. C. Pool, Cary; Vice-President, Warren County, Dr. W. G. Weston, Vicksburg; Secretary-Treasurer, Dr. Leon S. Lippincott, Vicksburg; Board of Censors for three years, Dr. J. B. Benton, Valley Park; Committee on Medical Defense, Dr. E. F. Howard, Vicksburg; Delegates to the Mississippi State Medical Association for two years, from Issaquena County, Dr. W. H. Scudder, Mayersville; from Sharkey County, Dr. W. C. Pool, Cary; from Warren County, Dr. J. A. K. Birchett, Jr., Vicksburg.

The next meeting of the Society will be held on Tuesday, January 12, 1932.

PONTOTOC COUNTY.

Distressingly healthy for the time of the year.

Dr. D. T. Dempsey of Toccopola recently moved to Potts Camp.

The regular quarterly meeting of the Northeast Mississippi Thirteen County Medical Society will be held in the First Methodist Church at Tupelo, Tuesday, December 15. A record-breaking crowd is expected.

R. P. Donaldson, County Editor.

JACKSON COUNTY MEDICAL SOCIETY.

At a regular meeting of the Jackson County Medical Society held on December 7, the following officers were elected: President, E. L. Bailey;

Vice-President, R. G. Lander; Secretary and Treasurer, J. N. Rape; Delegate to the Mississippi State Medical Association, S. B. McIlwain.

Dr. J. E. Beck, Mobile, Alabama, gave an interesting and instructive paper on "Cirrhosis of the Liver."

Drs. Lander and McIlwain attended the meeting of the Southern Medical Association in New Orleans and reported a good meeting.

S. B. McIlwain, County Editor.

McRAE HOSPITAL AND CLINIC, CORINTH.

Replying to your letter, beg to advise that on account of the scarcity of money our doctors are staying at home and trying to collect and do what little practice there is.

Dr. W. W. McRae of our Staff attended the Southern Medical meeting at New Orleans.

In case anything of interest occurs we will be glad to report the same from time to time.

W. W. McRae.

KING'S DAUGHTERS' HOSPITAL.

The staff of the King's Daughters' Hospital, Greenville, met at seven o'clock p. m., on December 9, at which time supper was served. Dr. F. M. Acree presided and the following additional members were present:

Drs. A. G. Payne, J. C. Pegues, T. B. Lewis, R. C. Wilson, P. G. Gamble, E. T. White, J. F. Lucas, O. H. Beck, John Archer, L. C. Davis, George Eubanks, John Shackelford, J. A. Beals, J. B. Hirsch and R. D. Dickens.

The following members were absent.

Drs. H. A. Gamble, C. P. Thompson, D. C. Montgomery, J. R. Baldwin and H. R. Miller.

The minutes of the previous meeting were read and discussed.

A report of hospital work was read and discussed, and the following cases reported:

1. A Case Report of Scurvy Simulating Acute Osteomyelitis of Tibia.—R. D. Dickens, M. D.

2. Sarcoma of the Lung.—E. T. White, M. D.

F. M. Acree.

VICKSBURG SANITARIUM.

The regular monthly meeting of the Vicksburg Sanitarium was held on Thursday, December 10. As this was also the annual meeting, officers for

the year 1932 were elected as follows: President, Dr. G. M. Street; Vice-President, Dr. J. A. K. Birchett, Jr.; Secretary, Dr. L. S. Lippincott.

After a consideration of reports from the records department and analysis of the work of the hospital, the following special case reports were presented:

1. Caesarian Section—Indications.—Dr. G. M. Street. Discussed by Drs. G. W. Gaines, and S. W. Johnston.

2. Pyloric Obstruction.—Dr. J. A. K. Birchett, Jr. Discussed by Drs. Gaines, G. M. Street, S. W. Johnston, Lippincott, and L. J. Clark.

3. Catarrhal Jaundice.—Dr. L. J. Clark. Discussed by Drs. Gaines and G. C. Jarratt.

4. Ileo-Colitis With Unusual Sequelae.—Dr. G. C. Jarratt. Discussed by Dr. L. S. Lippincott.

Drs. Lippincott, Clark, and Jarratt, reported on the recent meeting of the Southern Medical Association at New Orleans.

Reports of the literature of the month were made as follows:

The Van den Bergh Reaction.—Dr. L. S. Lippincott.

Abruptio Placentae.—Dr. J. A. K. Birchett, Jr.

Oxygen in the Treatment of Heart Disease.—Dr. L. J. Clark.

The meeting closed with a lunch. The next meeting will be held on Monday, January 11, 1932.

PIKE COUNTY MEDICAL SOCIETY

The Pike County Medical Society met in the Palm Room, McColgan Hotel, Thursday, December 3, at 7 p. m. Members present: W. C. Hart, W. O. Biggs, T. Paul Haney, Jr., A. J. Fortinberry, B. J. Hewitt, Elise Rutledge, T. B. Abney, M. D. Ratcliff, L. J. Rutledge, H. C. Hatcher, Thomas Purser, R. H. Brumfield.

Dr. B. J. Hewitt read a paper on "The Mid-Wife Problem."

Officers were elected for the year 1932 as follows: W. O. Biggs, Osyka, President; M. D. Ratcliff, McComb, Vice-President; H. C. Hatcher, McComb, Secretary; T. Paul Haney, Jr., McComb, Editor.

Robert H. Brumfield, Secretary.

MARTIN SANATORIUM

Dr. Guy R. Jones has resigned his position with the Martin Sanatorium and moved to Lockport, Louisiana, where he is engaging in private practice.

Dr. Noah W. Fountain has been employed to take Dr. Jones' position with the Martin Sanatorium.

V. B. Martin.

LEFLORE COUNTY

Dr. Ruth Dean, who has been practicing in Greenwood for several years, has gone to Lewis, Delaware, to take a position in the Beebe Hospital.

Dr. R. B. Yates, formerly of Greenwood, but now connected with the Veteran's Hospital, Atlanta, Georgia, spent Thanksgiving with relatives and friends in Greenwood.

Dr. F. M. Sandifer, Greenwood, was recently elected President of the staff of the Greenwood-Leflore Hospital.

W. B. Dickins, County Editor.

DR. W. B. MARTIN.

A few days since, Dr. W. B. Martin, the oldest and most beloved physician of Indianola and Sunflower county, passed from our midst. He died very suddenly at his home in Indianola at the ripe age of 73. He was Indianola's leading surgeon as well as physician, having practiced his profession there for 40 years and having taken an active part in everything that stood for the progress and welfare of his community. He was the first elected President of the Delta Medical Society and was an active interested member to the end. He attended every meeting and was one of its chosen spirits, beloved and honored by everyone. He will cherish his memory, knowing that our loss is his gain.

J. W. Lucas,
Councilor First District.

SHARKEY COUNTY.

Dr. H. B. Goodman of the Mississippi State Charity Hospital, Vicksburg, spent December 4

with his parents, Dr. and Mrs. H. S. Goodman of Cary.

Dr. W. C. Pool was recently called to Leaks-ville on account of the serious illness of his father, Dr. Sam Pool.

Dr. and Mrs. E. B. Stribling, Rolling Fork, had the pleasure of having their son and his wife to spend their vacation with them.

Dr. and Mrs. H. S. Goodman, Cary, will have their daughter, Miss Ethel, with them for the holidays. Miss Ethel teaches at Ocean Springs.

Mrs. L. E. Martin, wife of the late Dr. L. E. Martin, Anguilla, has with her for the holidays her daughter and son, Mr. and Mrs. Allen Selby of California.

The Sharkey County unit of the Issaquena-Sharkey-Warren Counties Women's Auxiliary met Dec. 7 with Mrs. L. E. Martin at Anguilla. After the business session and a discussion of the Tuberculosis Seal campaign, which the Auxiliary is sponsoring, Mrs. Martin served delightful refreshments. The following members were present: Mesdames Stribling, Few, Goodman, and Pool. Mrs. Robert Foster was a guest.

Dr. A. K. Barrier, Health officer of Sharkey County, read a paper before the Southern Medical Association at the November meeting in New Orleans, Louisiana. His subject was "Remarkable Progress in Screening Houses In Sharkey County." Mr. I. E. Gatlin, sanitary inspector, and Mr. Lowe, sanitary engineer of the Sharkey County health unit accompanied Dr. Barrier.

W. C. Pool, Editor.

WINSTON COUNTY.

Dr. R. L. Donald, Louisville, a former partner of Dr. W. W. Parks, has moved to Meridian, where he has accepted a position as intern at the State Charity Hospital.

Dr. W. W. Parks made a pleasure visit to Philadelphia last week.

Mr. N. S. Fox, pharmacist and owner of the Fox Drug Store, is now at Hot Springs, Arkansas, taking treatment.

The City Pharmacy was partially destroyed by fire a few days ago. The loss was partly cov-

ered by insurance. The fire started in the Tyson Company building which sustained some damage also.

Dr. E. L. Richardson enjoyed a fox hunt on November 28, having, as I understand, a great thrill and pleasure, catching the fox they chased.

Dr. V. B. Philpot, Houston, visited Philadelphia on Thanksgiving day. He seemed to be enjoying fine health and prosperity.

M. L. Montgomery, County Editor.

NORTHEAST MISSISSIPPI THIRTEEN COUNTY MEDICAL SOCIETY.

Acknowledgment is made to Dr. J. M. Acker, Jr., Secretary, for receipt of program and invitation to attend the Regular Quarterly Meeting of the Northeast Mississippi Thirteen County Medical Society held in the First Methodist Church at Tupelo, on Tuesday, December 15, at 1 p. m.

The program as published was as follows:

1. Meeting Called to Order.—Dr. C. E. Boyd, President.
2. Invocation.—Rev. Buhrman.
3. The Acute Abdomen. Moving Pictures of Goitre Operation.—Dr. W. D. Haggard, Nashville, Tennessee.
4. The Vomiting of Pregnancy.—Dr. C. B. McCown. Discussion Opened by Drs. Eason and Deanes.
5. Surgical Dilemmas.—Dr. E. Q. Ewing. Discussion opened by Drs. Philpot and Ivy.
6. President's Address.
7. Business Session.
8. Election of Officers.
9. Banquet, Tupelo Hotel.

African Hunt, with Motion Pictures.—Dr. Casa Collins, Memphis, Tennessee.

It is announced that the President for 1932 would be elected from Lee County.

Attention was called to the fact that to maintain State medico-legal defense, dues must be paid up by the first of January and that for reciprocity it is necessary to be a member in good standing of the local medical society. The annual dues are \$6.00.

BOLIVAR COUNTY.

Dr. L. B. Austin, Rosedale, attended the meeting of the Southern Medical Association at New Orleans in November.

We were honored and pleased with a visit from Dr. W. J. Mayo of Rochester, Minnesota, who, accompanied by his good wife, visited Rosedale during a cruise down the Mississippi. The doctor had with him on his yacht many of the other doctors from his clinic, together with their wives, and while here visited the King's Daughter's Hospital. They were profuse in praise of the hospital and its efficient management.

We are glad to be able to announce that Mrs. Sallie Cockerham, mother of Dr. H. L. Cockerham of Gunnison, is once more at home after an operation in Greenville.

C. W. Patterson, County Editor.

HONOR ROLL FOR JANUARY.

The Mississippi Section of our Journal this month is due to the efforts of the following:

R. D. Dickins, J. A. K. Birchett, Jr., L. J. Clark, G. C. Jarratt, W. H. Watson, J. C. Culley, T. M. Dye, C. M. Murry, E. F. Howard, W. H. Friezel, G. S. Bryan, N. W. Nanney, C. M. Coker, F. M. Acree, L. Wallin, R. W. Hall, E. H. Jones, F. J. Underwood, A. H. Little, R. P. Donaldson, S. B. McIlwain, W. W. McRae, R. H. Brumfield, V. B. Martin, W. B. Dickins, J. W. Lucas, W. C. Pool, M. L. Montgomery, J. M. Acker, C. W. Patterson.—30.

Your editors thank you.

SUGGESTIONS.

All members of the Mississippi State Medical Association are reminded that the Mississippi Section of the New Orleans Medical and Surgical Journal belongs to you. In the New Year this section will be what you make it and its form and contents will be in accordance with your wishes. Every member of the Association is invited and urged to send to the editor suggestions, ideas, opinions, and news notes, with the assurance that all communications will be given careful consideration. May we not have your active support and co-operation?

HEALTH OFFICERS AND SANITARY INSPECTORS.

The program of the Nineteenth Annual Conference of Health Officers and Sanitary Inspectors, held on December 17 and 18, in the convention hall, Robert E. Lee Hotel, Jackson, included the following:

December 17—9 a. m.

1. Meeting Called to Order.—Dr. Felix J. Underwood.

Invocation.—Dr. J. L. Decell.

Roll Call.

2. A Message from the State Department of Education.—S. B. Hathorn, State Supervisor of High Schools, Jackson.

3. The Importance of Including the Negro in Any Diphtheria Control Program.—Dr. C. J. Vaughn, Lexington.

Discussed by Drs. A. R. Perry, Yazoo City, and R. D. Dedwylder, Cleveland.

4. The Role of the Family Physician in a Public Health Program.—Dr. A. L. Emerson, Hernando.

Discussed by Drs. R. W. Smith, Canton, and W. N. Jenkins, Port Gibson.

5. The Public Health Nurse in a Generalized County Health Program.—Augustine B. Stoll, R. N., Jackson.

Discussed by Mary D. Osborne, R. N., Jackson.

Lunch—2:00 p. m.

6. A Practical Tuberculosis Control Program for a County Health Department.—Dr. B. D.

Discussed by Drs. W. H. Cleveland, Tupelo, and A. L. Gray, Hazlehurst.

Elackwelder, Hattiesburg.

7. A Plea for a Practical and Uniform Record System for County Health Departments.—Dr. J. A. Milne, Jackson.

Discussed by H. A. Kroeze, Jackson.

8. The Rabies Problem in Mississippi.—Dr. T. W. Kemmerer, Jackson.

Discussed by Drs. R. E. Giles, Mendenhall, and H. C. Ricks, Jackson.

Evening Session—7:30 p. m.

General Meeting

Dr. Felix J. Underwood, Presiding

Address—Assistant Surgeon General C. E. Waller, U. S. Public Health Service, Washington, D. C.

December 18—9 a. m.

1. The Importance of School Medical Inspection in a Public Health Program.—Dr. F. Michael Smith, Vicksburg.

Discussed by Drs. J. T. Googe, Meridian and John W. Shackelford, Greenville.

2. An Effective Preschool and School Program for a County Health Department.—Dr. T. Paul Haney, McComb.

Discussed by Drs. W. E. Noblin, Jackson, and L. Wallin, Natchez.

3. Address—Dr. W. G. Smillie, Prof. of Public Health Administration, Harvard University, Boston, Mass.

Lunch—2:00 p. m.

4. Dental Hygiene in a Public Health Program—Why and How?—Wm. R. Wright, D.D.S., Jackson.

Discussed by Miss Gladys Eyrich, Jackson.

5. Suggestions for Handling the Perplexities, Difficulties, and Oppositions Encountered in the Administration of a County Health Department.—Dr. Dan'l J. Williams, Gulfport.

Discussed by Drs. L. A. Barnett, Greenwood, and A. K. Barrier, Rolling Fork.

6. Symposium on Sanitary Inspections.—N. M. Parker, D.V.M., Jackson.

Discussed by Floyd Ratliff, Jackson, and John Grant, Vicksburg.

ALABAMA, FLORIDA, GEORGIA, LOUISIANA, AND MISSISSIPPI SECTIONAL MEETING OF THE AMERICAN COLLEGE OF SURGEONS.

A general invitation is extended to all members of the medical profession of the State to attend the Alabama, Florida, Georgia, Louisiana and Mississippi Sectional Meeting of the American College of Surgeons, to be held in Jacksonville at the Mayflower Hotel on February 1 and 2, 1932.

The committee on local arrangements in Jacksonville with the co-operation of the College headquarters are making every possible effort to assure a highly instructive and interesting meeting. The general outline of the program announced is as follows:

Monday, February 1, 1932:

7:30 to 8:30 a. m.—Registration at the Mayflower Hotel.

8:30 to 11:00 A. M.—Operative clinics and demonstrations in general surgery and the surgical specialties at local hospitals.

11:30 to 12:30—Clinical address by an outstanding visiting surgeon.

9:30 to 12 noon—Hospital round table conference.

2:00 to 4:30 P. M.—Hospital standardization conference for members of medical staffs, trustees, superintendents, nurses and others interested in hospital work.

4:30 to 5:00 P. M.—Annual meeting of the fellows of the College.

6:30 to 10:00 P. M.—Dinner and sound medical motion picture exhibition.

Tuesday, February 2, 1932.

8:30 to 11:00 A. M.—Operative clinics and demonstrations in general surgery and the surgical specialties at local hospitals.

11:30 to 12:30 A. M.—Clinical address by an outstanding visiting surgeon.

9:30 to 12 noon—Demonstrations and round table conference on hospital departmental problems at one of the local hospitals.

2:00 to 5:00 P. M.—Scientific meeting.

2:00 to 4:30 P. M.—Demonstrations and round table conference on hospital departmental problems at one of the local hospitals.

8:00 to 10:00 P. M.—Community health meeting.

A number of distinguished surgeons, health leaders, and hospital authorities, from outside the state included in the section will be brought by the College to Jacksonville on this occasion to participate in the program.

On Monday evening it is to be especially noted that there is a dinner to which all of the medical profession are cordially invited. Following this dinner there will be a most interesting exhibition of sound medical motion pictures. Full details of the program will appear later.

Kenneth A. Morris, Secretary of
Committee on Local Arrangements.

DEATHS OF MISSISSIPPI PHYSICIANS.

Dr. W. B. Martin, Indianola; November 23, 1931; at Indianola. Born Copiah County, Mississippi, December 26, 1857.

Dr. J. T. Crawley, Kosciusko; Broncho Pneumonia; Carcinoma of Colon; November 26, 1931; at Kosciusko. Born Atala County, Mississippi, March 9, 1854.

Dr. J. A. Dilworth, Aberdeen; Acute Dilatation of the Heart; Carcinoma of Prostate; November 12, 1931; at Aberdeen, Mississippi. Born Athens, Mississippi, July 3, 1861.

Dr. A. C. Norman, Braxton; Heart disease; Hypertension; Cirrhosis of Liver; November, 1931 at Jackson, Mississippi. Born Fannin, Miss., January 7, 1877.

JACKSON COUNTY MEDICAL SOCIETY.

The Jackson County Medical Society met at Jackson County Hospital, December 7, and elected the following officers for 1932:

President, Dr. O. L. Bailey, Ocean Springs; Vice-President, Dr. R. G. Lander, Pascagoula; Secretary, Dr. J. N. Rape, Moss Point; Delegate, Dr. S. B. McIlwain, Pascagoula.

Dr. J. E. Beck of Mobile, Alabama, was a visitor at this meeting and read a most instructive paper on "Cirrhosis of the Liver."

J. N. Rape, Secretary.

CONGRATULATIONS

Dr. and Mrs. Charles Thomas Burt
Meridian

Twenty-fifth Marriage Anniversary

BOOK REVIEWS

Collected Papers of the Mayo Clinic and the Mayo Foundation: Edited by Mrs. Maud H. Mellish-Wilson, Richard M. Hewitt, B. A., M. A., M. D., and Mildred A. Felker, B. S. Volume XXII, 1930. Philadelphia, W. B. Saunders Company. 1931. pp. 1125.

Of the 482 papers published by the investigators of the Mayo Clinic and the Mayo Foundation, this volume reprints in full 85; 35 others are given in abridged form, and 55 are abstracted. The publications of the Clinic and the Foundation cover many phases of medicine and surgery as well as some of the preclinical sciences. Approximately one-half of the complete and abridged reprints pertain to conditions of the alimentary tract, while the remainder deals with research on the genito-urinary system, endocrine apparatus, blood and circulatory system, skin, and other organs and body regions. The papers are distinguished by thoroughness and scholarship, and are of extremely practical interest.

CHARLES MIDLO, M. D.

Bulletin of the National Research Council. Number 83. A Compendium of the Statute Law of Coroners and Medical Examiners in the United States. By George H. Weinmann, L.L. B. Issued under the auspices of the Committee on Medicolegal Problems, National Research Council. The National Academy of Sciences. 1931. pp. 240.

It is the attempt of this bulletin to outline the powers and duties of coroners and medical examiners. The manner of their selection, rules and eligibility and qualifications, deputy coroners, powers and duties of coroners in general, the holding of inquests, compensation, fees of the coroner, jurors and witnesses, and special statutes relative to medical examiners are all considered. The latest obtainable statutes are cited and the cases judged most applicable discussed. This book suggests many improvements in this field in the several states of this country. It discusses the subject in a simple, easily readable and interesting manner. It or a similar compendium should be on the shelf of all those concerned with this subject since it will serve not only as interesting reading but also as an invaluable reference.

J. W. WILLIAMS, M. D.

High Frequency Practice: By Burton Baker Grover, M. D. (6th ed.) Kansas City, Mo., The Electron Press. 1931. pp. 625.

The sixth edition of *High Frequency Practice*, by a man who has devoted the better years of his life to the study, the teaching and the practice of physical therapy, has been rewritten with the addi-

tion of a new chapter, "The High Frequency Machine" and thirty-two illustrations.

There are twenty chapters and an appendix. The first four chapters comprising 110 pages have to do with a consideration of physics and electrophysics. These will be hurriedly scanned by the average practitioner who is more interested in the therapeutic application. The chapter on surgical diathermy is by Wm. L. Clark whose technic of electrodesiccation is standard wherever electrosurgery is performed. A. David Wilmoth contributes the chapter on diathermy in gynecology. The author quotes from the work of Stewart on diathermy in pneumonia. There follows a consideration of the therapeutic application of high frequency currents to the various systems of the body. The author has had considerable experience in the use of auto-condensation in hypertension and there is an excellent discussion of the subject.

It is regrettable that the bibliography is so short, and that the work of specialists in other fields employing high frequency currents as adjuncts to their treatment is not more fully considered. Reference could have been made to a number of recent investigations with high frequency currents such as the production of hyperpyrexia for the treatment of paresis and other afebrile diseases. The glossary has been revised and a number of the definitions conform to those compiled by the Council of Physical Therapy of the American Medical Association.

This volume contains much valuable information on the use of high frequency currents in medicine and surgery. A copy of this book or one of its previous editions is found in the library of practically every physician interested in physical medicine.

NATHAN H. POLMER, M. D.

Health for Travellers: Hygiene and Health Preservation in the Tropics, Orient and Abroad: By the Staff of the Pacific Institute of Tropical Medicine, within the George Williams Hooper Foundation for Medical Research of the University of California; edited by Alfred C. Reed. Stacey, 1931. pp. 239.

This small and handy volume should be of much value in diagnostic and therapeutic hints while travelling and until the aid of a physician is obtained.

I. L. ROBINS, M. D.

Dynamic Retinoscopy: By Margaret Dobson, M. D. London, Oxford University Press. 1931. pp. 56.

This small book will be read with pleasure and profit by any ophthalmologist. Although the ad-

vantages of dynamic retinoscopy are emphasized, the entire subject is discussed in a complete and practical manner.

In dynamic retinoscopy, the estimation of the most efficient correcting glass is made at about twenty-four inches, using a small object for fixation at the same distance. In this way, accommodation, accommodative convergence, and fusional convergence are combined. This the author and some others believe to be of material advantage in efficiently refracting the eyes.

The history and fundamentals of retinoscopy are explained. Some of the instruments made in the United States and England are illustrated. The author has devised a retinoscope which has multiple small fixation objects arranged in a disc attached to the retinoscope head from which they are illuminated.

The various forms of heterophoria are discussed at some length, including the various tests for duction and muscle imbalance.

The subjective symptoms of heterophoria are usually closely associated with the co-existing refractive error. The most efficient sphere cylinder lenses in more than 95 per cent of patients cause the muscle imbalance symptoms to subside. There is a passive convergence insufficiency in myopia. In hyperopia and hyperopic astigmatism there is an excessive convergence innervation.

Esophoria is more frequent in the young; exophoria in middle life. For non-presbyopic exophoria of more than six degrees, the author recommends orthoptic exercises to synchronize the intrinsic and extrinsic ocular muscles.

Plus lenses repress accommodation and limit convergence. Minus lenses increase accommodation and induce convergence. A full correction is therefore considered advisable in hyperopia combined with esophoria, and an under correction with exophoria. In presbyopia, prisms are suggested when the duction power is less than the exophoria.

Dynamic retinoscopy has marked limitations. It usually affords only a rough approximation of the cycloplegic one best vision lens obtained by static retinoscopy and two verifying tests. Its routine use is hardly justified. When the proper sphere cylinder correction does not relieve the ocular symptoms which are due to muscle imbalance, this test with others helps one to better understand the underlying motor anomaly and its remedy.

CHAS A. BAHN, M. D.

How is Your Blood Pressure: By Clarence L. Andrews, M. D. New York, The MacMillan Co. 1931. pp. 225.

This book is intended for the lay individual interested in or suffering from some phase of blood

pressure malfunction. It covers the etiology, physiology, etc. of hypertension and hypotension in a very elementary manner. Nevertheless it is too complex for the average layman to comprehend.

There are fourteen chapters comprising the volume and much of the material is padded as the author allows himself to discuss subjects foreign to his title. I think the author is rather liberal in some of his normal blood pressure readings. Again, there is the possibility that the reader may form the opinion that hypertension and hypotension always have a recognizable basis. There is also the danger that many of the readers will become "blood pressure conscious," thereby becoming potential neurasthenics.

In conclusion: though the text does have some value for a limited number of patients, it is not practical for the masses and meets no special need.

SIDNEY M. COPLAND, M. D.

PUBLICATIONS RECEIVED.

P. Blakiston's Son & Co., Inc., Philadelphia: Emergency Surgery, by John William Sluss, A. M. M. D., F. A. C. S., and John Walter Martin, M. D., F. A. C. S.

C. V. Mosby Company, St. Louis: Living the Liver Diet, by E. A. Miner, M. D. Allergy and Applied Immunology, by Warren T. Vaughan, M. D.

The Macmillan Company, New York: Conquering Arthritis, by H. M. Margolis, M. D.

Harvard University Press, Cambridge: Diabetes, Its Control By the Individual and the State, by Elliott P. Joslin, M. D.

The Williams & Wilkins Company Baltimore: The Practice of Contraception, by Robert L. Dickinson, M. D.

Paul B. Hoeber, Inc., New York: Matas Birthday Volume, A Collection of Surgical Essays.

Lea & Febiger, Philadelphia: Food Allergy, by Albert H. Rowe, M. S., M. D.

Henry Holt and Company, New York: The Human Voice, Its Care and Development, by Leon Felderman, M. D.

The Century Company, New York and London: Health Protection for the Preschool Child, White House Conference on Child Health and Protection.

Twenty-Fifth Annual Conference of the American Association of Medical Milk Commissions, Inc., and The Certified Milk Producers' Association of America, Inc.

New Orleans Medical

and

Surgical Journal

Vol. 84

FEBRUARY, 1932

No. 8

THE PHYSICIAN'S RESPONSIBILITY IN THE REDUCTION OF THE CANCER MORTALITY.*

URBAN MAES, M. D.,

NEW ORLEANS.

I have been wondering lately whether I am seeing an unusual amount of malignant disease, whether my cases represent more advanced types or more virulent types of cancer than other surgeons are seeing, whether my disheartening record of suffering and death is unique. I question, however, whether I differ from other physicians in any of these particulars, though I know that the sum total of disaster has forced itself upon my consciousness, and I have asked myself in all seriousness wherein lies the fault. For I do not deceive myself; there are men and women in their graves today who, if they had been wiser and if their physicians had been wiser and if I, their surgeon, had been wiser, would still be living and well and useful. Whose is the responsibility for this fearful wastage of human life?

I have tried to answer my own question by a study of my own records and I find in them much food for very sorrowful thought. Let me illustrate. Carcinoma of the large bowel is usually of a low grade of malignancy and remains amenable to surgery long after carcinomatous growths in other locations have already metastasized. Yet last fall I operated upon a man with inoperable carcinoma of the rectosigmoid junc-

tion who had been treated, so his physician wrote me, with salvarsan over a long period of time because it was hoped, in spite of his negative Wassermann, that his definitely palpable rectal growth might be syphilitic. I performed a colostomy on him and I give him until midsummer to live. The appendix is admittedly one of the most favorable locations in which malignancy can occur, yet last month I operated on a man with a generalized peritoneal carcinomatosis of appendiceal origin, who had been treated medically for indigestion for a year and a half. I could do nothing for him, and I have just heard of his death.

Last December I performed a permanent colostomy on a physician, again for inoperable carcinoma of the rectum, who had permitted himself to be treated for months for amebic dysentery, though the parasite had never been identified in the stools. I daily expect word of his death. A few years ago I did a radical breast amputation on a brilliant young physician who knew for a full twelve months before she consulted me that she had a suspicious mass in her breast and who delayed operation for another six months after I had seen her and had told her frankly of her condition; she died eighteen months later, with as widespread a metastasis as I have ever seen.

I have just been told of a young woman, well educated, intelligent, with a background of millions, who had suspected to the degree of certainty for more than two years that she had a cancer of the breast, but who, because she did not want an

*Read before the Orleans Parish Medical Society, May 25, 1931.

operation, permitted her disease to be discovered only a week before it killed her. The tale was told to me by a woman, also of intelligence far beyond the average, who seemed in no wise appalled by this wicked and senseless sacrifice; her tone throughout was one of admiration for the stoicism with which her friend had borne what I grant must have been extreme mental and physical anguish, and no words of mine could convince her of the folly of the whole performance or persuade her that she had witnessed a spectacle in all respects akin to suicide.

It is an incredible story, of course, and yet how can we blame the public for its blindness when we of the profession are equally blind? This young woman killed herself, but in the other cases I have quoted—I speak very bluntly—did not the physicians kill their patients, did not the physicians kill themselves by the treatment which they undertook on their patients and which they permitted to be undertaken on themselves? They were finally my surgical cases, and I have no desire to be self-righteous, but I hold myself in no wise primarily responsible for their deaths, or for the deaths of dozens of men and women like them whom it has been my unhappy lot to treat.

Part of the cancer mortality is, with the limitations of our present knowledge, beyond human control. Part of the cancer mortality, a large part of it, is unquestionably due to the fear and ignorance of the public who are our patients. But is not a large part of it the responsibility of the medical profession? An increasing number of people are seeking medical advice promptly for conditions which they suspect to be precancerous or cancerous, and as a result, a tremendous responsibility rests upon the physician who undertakes the management of such cases, for upon his diagnosis, at a time when a cure is frequently to be hoped for but diagnosis is frequently difficult, rest the issues of life and death. You and I know in how very

many cases that responsibility is not being adequately met.

The first reason is that the physician often does not put into use a fact which he usually knows full well, that the clinical signs of early malignancy, no matter in what organ or part the disease appears, do not differ from the manifestations of other non-malignant diseases in the same organ or part. So he dismisses his patient after a cursory study, with a salve for the unhealed sore, with douches for the metrorrhagia, with pills for the indigestion, with laxatives for the constipation or bismuth for the diarrhea. He is consigning these unfortunate men and women to death just as surely as if he had given them doses of deadly poison.

The only safe rule for the physician to follow is to consider as cancer until it is definitely proved not to be cancer any stubborn surface lesion, any perversion of function, any change in the previous norm, any irregularity or disturbance of any sort which occurs in persons within the cancer age. And that age, let me remind you, begins considerably earlier in life than many of us are wont to consider that it begins. A change in a woman's menstrual habit is always of grave import. Digestive symptoms which do not yield promptly and permanently to simple remedies demand detailed investigation. A variation in bowel function, no matter how it is evidenced, suggests carcinoma, and if it is accompanied by anemia, malignancy of the right half of the colon can be very strongly suspected.

Every physician knows the importance of not overlooking these and similar symptoms, yet many physicians, as every surgeon knows from bitter experience, do not use their knowledge. They temporize and hesitate, and, most important of all, they do not employ the only infallible method of ascertaining beyond shadow of doubt that a condition is malignant or that it is not. Cancer in this day is a microscopic fact, and the clinical rules by

which our forefathers diagnosed malignancy should be thrown into the discard, and the entire emphasis placed upon the truth that the laboratory reveals. The certainty of clinical diagnosis, as Moynihan well says, is the certainty of death, and Bloodgood's point is equally well taken, that the early microscopic picture differs in every detail from the microscopic picture of the terminal phenomena, which, unfortunately, is the picture that most text-books paint.

A properly performed biopsy is the only absolutely dependable method of diagnosing the early case of malignancy, which is, at one and the same time, both the doubtful case and the curable case. Biopsy is better than the most detailed history, better than the most careful physical examination, better than the most elaborate chemical studies, better even than the evidence of the roentgen-ray. It is the final word in accuracy of diagnosis, and its negative value is quite as great as its positive value: to proceed to radical treatment, with its inevitable mortality and morbidity and its frequent ablation of function, without indisputable evidence that malignancy is present, is almost as criminal as to fail to diagnose the malignancy at all.

Biopsy should be done even if it necessitates preliminary surgery to accomplish it. Thus, curettage is the only safe way to eliminate uterine malignancy, and, much as I appreciate the scholarly work that Sampson has done, I hope that his point as to the danger of this procedure, the possibility of disseminating the cancer cells into the peritoneal cavity, will never be generally regarded; if it is, I feel convinced that the death rate from uterine cancer will be considerably higher than it is at present. The Mayo Clinic has the highest percentage of cures on record for carcinoma of the stomach, though I would remind you that the results of such a clinic are not nearly as important, in the last analysis, as your individual results and mine, for you and I and other single surgeons do more operations in the aggregate than does the staff

of the Mayo Clinic. I pay tribute to the surpassing skill of the Rochester surgeons, but I pay a deeper tribute to their wisdom in exploring promptly every patient in whom they do not find a definite reason for his digestive symptoms. Only thus can cures be accomplished.

Biopsy is a safe procedure, but there is a right and a wrong way of doing it. The tissues must be handled with the utmost gentleness if dissemination of the malignant cells is to be avoided. For the sake of the pathologist—the need of a competent one is so obvious that I refrain from comment on this point—the growth should always be excised with the knife rather than with the cautery, which distorts the true histologic picture, though the cautery should always be used to seal the incised area. The section, if the growth cannot be removed in toto, should be taken from the center of the suspected area and should be of sufficient size to permit of adequate examination. Finally, in doubtful cases, the diagnosis should be made by frozen section, and, if it can be made immediately, as it usually can be, the entire operation should be done in one stage, for the deferred radical operation carries an unquestioned additional risk.

Complete surgical excision, though it is not always either possible or practical, is the ideal treatment for carcinoma, and it is a pity that it is not considered emergency surgery, for none of us can know the moment when the borderline of safety is passed, though we know that it is passed very early. J. B. Carnett says somewhere that when he detects a lump in a woman's breast, he takes her to the hospital immediately in his own automobile, and there he excises it and studies it without a moment's loss of time. He may alarm his patients, but I have no doubt that he has thus saved many lives.

There must, however, be a proper conception of the surgery of cancer, and there very frequently is not. Mere excision is not enough, even wide excision is not enough.

The surgery of cancer, as Moynihan points out, is not the surgery of the organs, it is the surgery of the lymphatic and glandular systems, and no other variety demands more knowledge and more skill. Eight years ago I performed a radical breast amputation on a woman who, though she is now dying, has lived for eight years, six of them in perfect comfort. A few years ago her sister developed the same disease, and was dead within nine months after the performance of a simple mastectomy. I have been shocked on at least two occasions to find in the records of operations done for unquestioned cervical malignancy the statement that only the lower two-thirds of the cervix was amputated because the malignant growth had not extended beyond that area. The men who performed those operations knew nothing of anatomy, nothing of pathology, nothing of the routes by which cancer extends, and no man has a right to undertake the surgery of cancer unless he comprehends perfectly all of these things and unless he is able to do radical surgery with as much safety as radical surgery can be done.

But surgery, as we have said, is neither possible nor wise in all cases. It is now generally accepted that in carcinoma of the cervix uteri, even of the early variety, irradiation gives generally better results. In advanced cases of malignancy the patient's lot is often happier if radical measures are withheld and only palliative treatment employed. Finally, the patient who needs a mutilating operation had best be left to die in his own fashion, for no surgery can help him. This is particularly true of carcinoma of the oral cavity. The application of radium with the simultaneous ligation of the external carotid artery will sometimes arrest the malignant process for many months, but a mutilating operation, if it does not precipitate a fatal outcome, inevitably hastens the end, and in the interim the patient is a nightmare to himself and to his associates.

There is no specific cure for cancer and there probably will not be until its specific cause is discovered, but that does not prevent the announcement at intervals by lay people who know nothing, and by physicians who should know better, that such a cure has been found. We have recently witnessed such a premature announcement from the Pacific Coast, and the tragically hopeful and doomed victims who have dragged themselves across the Continent have found exactly what similar victims have found in similar quests, that they were following wandering fires. Yet how can we blame ignorant people for grasping at any thread of hope, for believing that the cure for cancer has been found, when presumably intelligent physicians have apparently accepted the claims, complacently forgetting that the chief criterion of a cancer cure, the lapse of a specified number of years, cannot possibly be met in a period of a few months. I have been astonished at the number of physicians who have written me, suggesting that patients whom they had referred to me and upon whom I had been obliged to pronounce a death sentence, should take the Coffey-Humber treatment. The proponents of the method have stated repeatedly that they have never said or implied that they have found a cure for cancer, and the merits of the treatment are now thoroughly disproved, but at that, its authors have just as much to be responsible for in the ill-advised publication of their human experiments while they were still without shadow of proof as were the physicians who half a dozen years ago cruelly held out to the victims of cancer the hope of relief by the now entirely discredited Koch cure.

These are old ideas, I grant, but I have felt justified in emphasizing them again because I know from a sad personal experience how completely they are being disregarded. Cancer is the King of Terrors, cancer is the Captain of the Men of Death, and until we know its specific cause it seems unlikely that we can conquer it. We

can, however, reduce its mortality appreciably by the routine use of certain procedures, biopsy in every doubtful case, the prompt and proper surgery when once the diagnosis has been made, and the unqualified condemnation of every cancer cure which has not proved by at least five years of trial that it is anything but another vain and cruel delusion.

PREGNANCY OR FIBROIDS.*

P. GRAFFAGNINO, M. D.

NEW ORLEANS.

Let me emphasize the fact that I do not recommend operation for diagnosis in cases of doubt between fibroids and pregnancy, for it is the mark of an obstetrician or gynecologist of experience to make a diagnosis before operation.

Modern scientific methods have made diagnosis more precise and recently has favored us by newer pregnancy tests. In all doubtful cases one must resort to:

1. Time element—this is sure if there is no urgency in arriving at a conclusion; no known tumor grows as rapidly as the pregnant uterus.

2. Roentgen-ray—the technic is now improved and is most valuable. Many authorities claim that differential diagnosis is possible as early as the sixth week.

3. Tests of precision:

- a. Ascheim-Zondek; depends on the quantity of anterior pituitary hormone in the urine of pregnant women. When injected into immature mice it causes demonstrable changes in the ovaries.
- b. Frank female sex hormone test; depends on the presence of the female sex hormone in the whole urine of pregnant women; when injected into castrated white mice causes changes in the vaginal spread.
- c. Siddall test; depends on the effect of anterior pituitary hormone in

the blood serum of pregnant women in the vaginal tract of immature mice.

Mazer and Hoffman¹ report that the female sex hormone test is the more reliable when positive, in that the proportion of error in non-pregnant women is less than 4 per cent. They say, however, that each test performed individually renders a positive reaction in 75 per cent of early pregnancies; when combined, the percentages, of positives is increased to 90 per cent by virtue of one of the three tests showing a positive reaction. A negative finding does not exclude the possibility of pregnancy. One can therefore see that even these tests are fallable.

If, however, after all these tests the diagnosis is still doubtful and the abdomen has been opened, I believe that a definite diagnosis can be made by especially noting the position of the round ligament and also that of the tubes and the suspensory ligament of the ovary. Failure to note this point has made the differential diagnosis very difficult, as can be attested to by any gynecologist or general surgeon of experience. Let me quote from various text books on gynecology and obstetrics:

DeLee²: "The differential diagnosis between large symmetrical interstitial fibroids and pregnancy is sometimes one of the most difficult to make. Times innumerable the belly has been opened and only the normal pregnant uterus has been found and, indeed, it may be almost impossible to distinguish the two even after the tumor is out of the belly in the hands of the operator."

Lynch³: "Uterine pregnancy advanced as far as the fifth month may offer the greatest difficulty in differential diagnosis. Cases are often operated as tumors and the true diagnosis obtained only when the abdomen is opened. Occasionally even when the abdomen is opened one may be most uncertain as to the nature of the growth, especially when it has been differentiated from a two or three months pregnancy. Even with growths of larger size the surgeon may

*Read before the Louisiana State Medical Society, New Orleans, April 14-16, 1931.

be convinced that he is feeling the outlines of a fetus. There is no surgeon of experience who has not had cases which proved to be most confusing."

Bland⁴: "A solitary edematous soft or cystic interstitial or submucous myoma of moderate size resembles very strikingly an early gestation, and the differentiation of the two conditions is sometimes exceedingly difficult or even impossible. In every questionable case the time factor should be taken advantage of and this will usually tell the tale. It is far better to do this, allowing a few months to observe whether any uterine changes occur rather than ex-

perience the chagrin and mortification not to mention the distress, disappointment and loss of confidence on the part of the patient, of opening the abdomen to find a pregnant uterus. Most men with an extensive gynecological practice have had this unhappy experience."

Graves⁵: "The diagnosis between pregnancy and myomatous uterus is sometimes exceedingly difficult and may lead to a disastrous procedure. A symmetrical edematous myoma may resemble a pregnant uterus very closely indeed."

C. C. Norris⁶: "The differential diagnosis between myomata and pregnancy may be



FIGURE 1. PREGNANCY

difficult. Even after the abdomen is opened some doubt may still exist. A single softened myoma is especially likely to simulate pregnancy."

In pregnancy the greatest development is in the fundal part of the uterus.

Williams⁷: "The enlargement of the uterus is not symmetrical, but is most marked in the fundal region. This can readily be appreciated by observing the relative positions of the insertions of the tubes and ovarian ligaments, which in the early months of pregnancy are almost on a level with the fundus; whereas in the later months their attachments are found at points slightly above the middle of the organ."

In fibroids the gross anatomy is entirely different. The fibroid arises from the middle coat of the uterus at or near blood vessels; it then spreads outward, downward, upward and laterally. As it grows, it displaces uterine tissues above it in these same directions, *i. e.* outward, etc., so that the relation of the round ligament to the body of the uterus is invariably disturbed, but the relation of one ligament to the other is maintained, that is, the distance between the ligaments is the same, for the tumor comes from underneath.

First mention of this fact, namely, the relation of the round ligament, ovaries and tubes in fibroids, as far as I ascertain, in the English literature was made by Kelly and Cullen⁸ in 1909. They

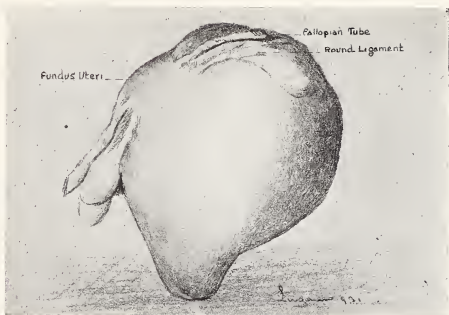


FIGURE 3. LEIOMYOMA.

say "Altered relation of one round ligament, to its fellow—The relation of the ends of the round ligaments to one another is often an important point in the diagnosis between pregnancy and myoma. In some cases, on opening the abdomen, the surgeon, from the general contour of the uterus cannot exclude pregnancy, although the clinical history in no way suggests it. Often a glance at the uterine insertion of the round ligaments will show that they are not over a few centimeters apart, although the uterus is as large as that of a six months' pregnancy. This will usually indicate that the enlargement is due to a tumor situated in the posterior wall. When pregnancy exists, there is usually an equable enlargement of the uterus, and although the distance between the round ligaments increases their points of uterine attachments remain on the same level." C. C. Norris⁶: is the only other writer that mentions this. He alludes to it in a short sentence:—"The round ligaments are especially prone to be asymmetrical and abnormal in location in the case of a tumor."

I, therefore, place great weight and importance on this differential diagnostic point and I think that fewer mistakes will be made in the 'open belly' if it is utilized. For the past fifteen years I have adhered to this sign which was first brought to my attention by the late Doctor Michinard and I have benefited by it.

Let me bring to your attention two cases that would have escaped a useless second



FIGURE 2. UTERINE LEIOMYOMA.

operation had this been borne in mind or known:

ILLUSTRATIVE CASES.

Dr. A. D. Bevan⁹ of Chicago reported a case of fibroid simulating pregnancy. A young woman of 30 years, a school teacher, came to his service with a large abdominal tumor. She was seen, in consultation with an obstetrician, and diagnosed fibroid tumor. The woman was not married and denied on questioning any possibility of pregnancy. The obstetric colleague was present at the operation and when the tumor was brought into view said, "Bevan that is a pregnancy and you must close the abdomen and let her go to term." The uterine mass was one that was absolutely consistent with being a pregnancy of about seven or eight months. The abdomen was closed. The patient was told the next day by Bevan and the obstetrician she had a pregnancy. She was indignant, stating with great emphasis that there was no possibility of her being pregnant. Bevan, therefore, insisted that she be kept under observation for three months and was very much surprised when she returned at the end of this time.

At the second operation he had this obstetric colleague and another obstetrician of some note who was quite positive, when the abdomen was opened that it was a pregnant uterus. However Bevan did a hysterectomy and turning the operation over to an assistant, the three, somewhat uncertain of the possibility, divided the uterus and found a fibroid.

B. More recently in this city a case was brought to my attention:

The positive points in the history are: Mrs. J. V., white, married and 41 years of age. Menstruations had been normal until December 1929 at which time she began to lose small quantities of blood for the next two months. She had three children living and well.

In February she consulted her doctor who advised her to be operated for a 'uterine tumor.' Accordingly, in April 1930, her abdomen was opened and much confusion existed—was it a pregnancy or was it just a fibroid? Deciding that it was a pregnancy, the abdomen was closed. Questioning the patient and her husband separately, they both denied that there could be any possibility of pregnancy.

Six weeks later on the insistence of the husband, the patient was again operated upon. At this operation, the assistant was one to whom I had imparted the information concerning the position of the round ligaments in the differential diagnosis of pregnancy and fibroids. Seeing that the round ligaments were to the sides and widely separated, he declared that it was a pregnancy. The uterus however was removed and on divid-

ing it a four and one-half months fetus was found.

CONCLUSIONS.

1. Diagnosis before operation is always to be desired.
2. Utilize the various new tests of presision in pregnancy.
3. When the abdomen is opened and confusion as to diagnosis between pregnancy and fibroid exists, utilize the sign of the round ligaments, suspensary ligaments of the ovary and tubes.
4. In fibroids the distance between the round ligaments, suspensary ligaments of the ovary and the tubes, is not increased and they 'ride' on top of the uterus. They are asymmetrical and abnormal in location.
5. In pregnancy the round ligaments are to the side, equable, and the distance between them is greatly increased.

BIBLIOGRAPHY.

1. Mazer, C. and Hoffman, J.: Three hormone tests for early pregnancy; their clinical evaluation: a comparative study. *Tr. Sect. Obst., Gynec. & Abd. Surg., A. M. A.*, 66-76; also *J. A. M. A.*, 96:19-23, 1931.
2. DeLee, Joseph B.: *Principles and practice of obstetrics.* W. B. Saunders Co., Philadelphia. 5th ed., 1928, pp. 569.
3. Lynch, Frank W. and Maxwell, Alice: *Pelvic neoplasms. Gynecological and Obstetrical Monographs.* pp. 74, 1922.
4. Bland, P. Brooke: *Gynecology: medical and surgical.* F. A. Davis Co., Philadelphia. 1924, pp. 958.
5. Graves, Wm. P.: *Gynecology.* W. B. Saunders Co., Philadelphia. 4th ed., 1928, pp. 361.
6. Norris, Charles C.: *Uterine tumors. Harpers Medical Monographs.* pp. 143, 1930.
7. Williams, J. Whitridge: *Obstetrics: a textbook for the use of students and practitioners.* D. Appleton & Co., New York. 6th ed., 1930, pp. 193.
8. Kelly, Howard A. and Cullen, Thos. S.: *Myomata of Uterus.* W. B. Saunders Co., Philadelphia. 1909, pp. 361-362.
9. Bevan, Arthur Dean: *Surg. Clin. of Chicago.* pp. 1085, 1919.

DISCUSSION.

Dr. A. J. Thomas, (Shreveport): Dr. Graffagnon's paper makes it evident that we should have some way of differentiating between these two conditions before operation, and at as early a time as possible. I believe that method is radiologic, and I began my work by accident. A patient was referred to me for a question of irradiation, the diagnosis lying between fibroids and carcinoma. She was 52 years of age, and

malignancy was suspected. Surgical treatment was finally decided upon, and the excised specimen showed, in addition to the fibroids, a four and a half months fetus.

(At this point Dr. Thomas exhibited slides showing pregnancies at various stages from four and a half months down to six weeks, and pointed out the methods of differentiating the fetal structures.)

When I began to interest myself in this subject, I found that by the development of a special technic it was possible to depict pregnancy at an earlier and earlier date, and I have radiograms visualizing the ovum as early as the sixth week.

Dr. H. V. Sims (New Orleans): I wish to begin by recommending that Dr. Thomas' slides, which he has just demonstrated, be followed by a view of his original roentgenograms, for the details are brought out more remarkably than on the slides. He has undoubtedly worked out a technic of great value, and we shall look for results from it.

I always ask my students to name for me the most common tumor which is found in women, and I am always gratified when they realize that pregnancy is the answer to that question. If we all remembered that fact, we should have fewer incorrect gynecologic diagnoses. Pregnancy is usually unsuspected in connection with fibroids, it is often found when the uterus is opened after operation or is reported from the laboratory, and it is usually very early. The combination undoubtedly makes diagnosis difficult, and if operation is done by mistake, the point made by Dr. Graffagnino, the uniform insertion of the round ligaments, is of the greatest value in the differential diagnosis. The uniform enlargement of the uterus, its consistency and its bluish discoloration can all be present with fibroids, but the uniform insertion of the round ligaments is unique. With the development of the Aschheim-Zondek test and with the radiologic technic devised by Dr. Thomas, we shall have diagnosis much simplified in the future, I am sure. The difficult cases are the early cases, few of us can be misled in the later months.

When pregnancy is definitely diagnosed in connection with fibroids, a fresh problem is introduced, how to manage it. Each case must be handled individually, but generally speaking, I would say that interference before term is never indicated unless hemorrhage, pain or fever forces our hand.

At the time of delivery individualization is again necessary. Can the patient deliver spontaneously? Is a test of labor warranted? If surgical delivery is indicated, shall myomectomy or hysterectomy be done? The age of the patient and the number of previous children have

much to do with the decision, for the problem of the woman of twenty and the problem of the woman of forty are essentially different.

Dr. E. L. King: The history in the case of pregnancy coincident with fibroids is often misleading. I have in mind a case in which the amenorrhea of pregnancy was masked by the menorrhagia of fibroids and the balance was struck in scanty menstruation which completely clouded the diagnosis until the abdomen was opened. Other signs and symptoms may be present in these cases, but the picture is always confusing.

The Aschheim-Zondek test, based on the finding of the pituitary hormone, or rather of one of the pituitary hormones, in the urine, is proving of very great value. It originally required a half dozen immature female rats, not weighing over 8 grams, and took 100 hours, but Schneider has recently reported that it can be successfully performed in 24 hours, using one or two immature rabbits 12 or 14 weeks old. The urine is simply filtered, not sterilized, and is injected into the ear vein of the rabbit, in quantities of 10 c.c. Within 24 hours there are definite hemorrhagic areas in the ovaries, clear enough to be seen with the naked eye and excellently demonstrated with a hand glass. His result are 100 per cent correct, but it remains to be seen whether they will be duplicated by others. If they can be, we have an excellent, simple and reliable test which will certainly be the standard diagnostic measure of the future in this particular problem.

Dr. Adolph Jacobs (New Orleans): Let us assume that all possible tests for pregnancy have been made and have been inconclusive. What possible reason would there be in the average case for surgical intervention immediately? The solution of the problem is to wait and to observe the patient, for if the patient is pregnant, the roentgen-ray will make the diagnosis for us in the fifth month, and in the average case there is no reason why we should not wait for it.

Dr. Hilliard E. Miller: I recently saw at the Mayo Clinic a most convincing demonstration of the value of the Aschheim-Zondek test. More than a dozen rabbits were autopsied after the injection of urine from supposedly pregnant women, and the results were positive in 94 per cent of the cases. The technic is very simple. It is most important to see that the immature female rabbits are isolated, so that there is no chance of intercourse, for rabbits ovulate only after coitus. Within 24 hours the changes described by Dr. King had occurred, and autopsy showed ovarian hemorrhagic areas which needed no magnifying glass to demonstrate them. Similar autopsies in control rabbits showed no changes at all, and my own opinion from this demonstra-

tion is that the problem of the diagnosis of early pregnancy has been solved.

Dr. Joseph Cohen (New Orleans): In 1922, at the New Orleans Charity Hospital, I saw the late Dr. Henry Cocram meet the problem of fibroids or pregnancy in the course of an operation in which the diagnosis was not clear. Even the point brought out by Dr. Graffagnino, of the insertion of the round ligaments, did not settle the question. He took an aspirating syringe, stuck it into the uterus, and examined the fluid which he withdrew from the mass, which, I should have said, obviously contained fluid. Upon examination he decided it was amniotic fluid, and the diagnosis was confirmed when the patient was delivered some months later. I mention this method of differentiation as applicable to the occasional case.

Dr. P. Graffagnino (Closing): With the many new tests we have at our command there seems little excuse today for operating to decide the question of pregnancy or fibroids, but the matter was not so simple some years ago. The young man entering medicine today has advantages we did not have, and my paper is based on my own experiences in former days. The tests for pregnancy now are nearly 100 per cent positive.

My chief reason for writing this paper was to emphasize this matter of the insertion of the round ligaments which was mentioned in 1909 and scarcely mentioned again in any text written prior to 1930. The uniform insertion of the round ligaments is almost pathognomonic of pregnancy when the abdomen is opened and the diagnosis is still not clear.

CHRONIC CUTANEOUS ULCERATION OF THE LOWER EXTREMITIES.*

ALTON OCHSNER, M. D.,†

NEW ORLEANS.

Chronic cutaneous ulceration of the lower extremities occupies a unique position in the practice of medicine in that in the past it has been one of the most difficult conditions which surgeons and general practitioners have been called upon to treat. Every physician, both during his medical school training and subsequently, has been impressed with the fact that the therapeutic results obtained in cases of

"chronic leg ulcer" have been less satisfactory than those obtained in other conditions. Chronic ulcers of the extremity undoubtedly occur more frequently among the poorer classes and, therefore, are seen in larger numbers in those institutions where the indigent are cared for. The condition does, however, occur frequently enough in private practice and even among the better class of patients that it behooves every physician to be familiar with the clinical entities.

The failure to obtain better results in the majority of patients with "chronic leg ulcer" is undoubtedly due to the fact that the attending physician's attention is directed primarily toward the manifest lesion without realizing that the ulcer of which the patient complains is merely a symptom and not a disease entity in itself. This assumption is well borne out by the frequency with which a diagnosis of "chronic leg ulcer" (ulcer cruris) is made in outpatient and hospital records. A diagnosis of "fever" in hospital records would be equally accurate, and yet no one, except in those cases in which the pyrexia is of unknown origin, would be satisfied with such an inexact diagnosis. Obviously, unless the underlying pathologic lesion which is responsible for the cutaneous ulcer is well understood, few or no results can be expected from the average type of treatment. However, if a correct diagnosis is made and the underlying pathologic process corrected, healing of the ulcer will almost invariably result.

Chronic cutaneous ulcers of the lower extremity may be classified as follows: 1, varicose ulcers; 2, syphilitic ulcers; 3, sickle cell anemia; 4, mycotic ulcers; 5, tuberculous ulcers, and 6, trophic ulcers.

VARICOSE ULCERS

Undoubtedly the most frequent ulcer of the lower extremity is that which is associated with varicose veins. According to Thomas¹ approximately 90 per cent of all patients suffering from "chronic leg ulcers" have the varicose type of ulcer.

*Read before the Louisiana State Medical Society, New Orleans, April 14-16, 1931.

†From the Department of Surgery, Tulane University School of Medicine, New Orleans, La.

This percentage, which may be correct in the University of Pennsylvania clinics, is certainly not a correct one in the Southern States, where a large negro population is present and in which a relatively higher proportion of syphilitic ulcers exist. Deville² found that among the patients presenting themselves with varicose veins at the Royal Waterloo Hospital varicose ulcers occurred in about 22 per cent. He states that this figure is much higher than the true incidence of ulceration associated with varicose veins, as a relatively large number of patients with varicose veins do not seek treatment until ulceration has occurred. In Steubner's³ cases ulceration occurred in 49 per cent.

Varicose ulcers are the result of changes produced in the skin and subcutaneous tissue, which are dependent upon stagnation of blood in the dilated and incompetent veins. In 1921 Magnus⁴ demonstrated that with the lower extremity in the horizontal position blood flowed through the varicose saphenous veins toward the heart. However, in a number of cases with the extremity in the dependent position or even at an angle of 45 degrees, the blood flowed peripherally and that the centrifugal rate of flow was greater than the normal flow toward the heart. He believes that as a result of the stasis there is an accumulation of metabolites which exert a detrimental effect on the tissues of the extremities. Schaeffer⁵, in determining the non-protein nitrogen content of blood obtained from varicose veins and comparing the values with those obtained from veins of the upper extremity, found that in 64 per cent of the cases the blood obtained from the varicose veins contained from two to three times as much non-protein nitrogen as that obtained from the arm. In a control group of cases it was found both by Schaeffer⁵ and by Klapp⁶ that a similar but less difference occurred in normal individuals. DeTakats and his co-workers⁷ have shown that the carbon dioxide content of the blood in the

varicose veins is definitely higher than that in the normal superficial veins, the average increase being 3.9 per cent by volume. They also found an average decrease in the oxygen content of 4.84 per cent by volume. As a result of stasis of blood with its associated anoxemia, there occurs an accumulation of metabolites and a local acidosis. Franke⁸ was able to demonstrate that in experimentally artificially produced venous stasis there was diminished alkaline reserve in the blood of the vein in which the stasis was present. Associated with these changes there is a decrease in the arterial blood supply. DeTakats and his co-workers⁷ found that approximately 50 per cent of patients with varicose veins show evidence of diminished arterial supply as determined by the skin response to histamine. As a result of these changes atrophy of the skin, dermatitis, and pigmentation occur, which following trauma (especially apt to occur in the lower portion of the leg) produces ulceration. The trauma, which is usually trivial, results in a wound through which micro-organisms may enter and produce a localized infection. Because of the local diminished blood supply and the decreased resistance of the part, infection is especially apt to occur and persist with resulting ulceration.

An attempt has been made by many authors to isolate a specific organism from varicose ulcers. Marcovici⁹ found a large number of different types, but was unable to find any specific organism in varicose ulcers. Nobl¹⁰ was unable to demonstrate any relation between the size and character of the ulcer and the type of organism found in it. McPheeters¹¹ believes that septic emboli originating in infected teeth and tonsils may be an etiological factor in varicose ulcers. Baerthlein¹², in a recent contribution on an extensive bacteriological study of varicose ulcers, isolated the following organisms from 320 ulcers: staphylococci, 308 times; diphtheria bacilli, 178 times; colon bacilli, 98 times; streptococci, 66 times. From this study he believes

that diphtheria bacilli frequently are the cause of varicose ulcers.

The most frequent site for varicose ulcers is on the left leg just above the internal malleolus which, because of the long unsupported internal saphenous vein, is the area in which the greatest amount of stasis occurs. Varicose veins occur more frequently on the left side than on the right, because of the peculiar anatomy of the venous system on the left, favoring obstruction. Goodman¹³ found in 64 cases of chronic ulcer of the leg that the right leg was involved in 25, the left in 26, and both legs in 13 instances. In the 26 cases in which only the left leg was involved, all of the ulcers were clinically of the varicose variety. In 73 per cent of these patients the Wassermann reaction was negative, whereas only 40 per cent of these with ulceration on the right leg had a negative Wassermann reaction. Of the 320 cases of varicose ulcers examined by Baerthlein,¹² 177 were on the left leg, 129 on the right, and 14 were bilateral. The etiology of varicose veins may be summarized as follows: venous stasis with its resulting anoxemia; local acidosis; and stagnation of the metabolites in the skin and subcutaneous tissue which, following a trivial trauma, predispose to delayed healing and to infection.

A varicose ulcer begins as a small cutaneous defect, but because of the lowered resistance of the part and infection, the defect becomes larger unless active therapy is immediately introduced. The size of the ulcer depends upon the degree of infection. It may vary from two to three millimeters to many centimeters in diameter. A varicose ulcer is characteristically shallow, the edges are usually sloping, and the appearance of the base varies with the type of infection. If there is considerable infection, the base is often covered with a purulent exudate beneath which granulation tissue may be seen. As the infection becomes less, the base becomes filled with healthy granulation tissue. Immediately surrounding the

ulcer and extending for varying distances, changes in the skin, such as atrophy, pigmentation, and loss of the normal elasticity, are present. The pigmentation seen in varicose ulcers is diffuse and extensive, often encircling the whole circumference of the lower leg. Itching of the part, especially before ulceration has occurred, is frequently complained of and is dependent upon the dermatitis. Scratching of the leg induced by itching may be the trauma which initiates the ulcerative process. Pain is almost invariably present in varicose ulcers, the degree being dependent upon the amount of inflammation. It is frequently the symptom which causes the patient to consult a physician. There is a constant discharge from the ulcer, the character and amount of which varies with the type and degree of infection. Only rarely is it profuse. Edema, clinically demonstrable, is seldom present. As Frey¹⁴ has shown, "latent" edema which may be demonstrated by the intradermal salt test is usually present. Changes in the bones and vessels of the extremity, which are dependent upon the ulceration, frequently occur. These changes vary chiefly with the chronicity rather than with the extent of the ulceration. According to Morris,¹⁵ the sequence of events is as follows: As the result of infection a lymphangitis occurs, which in a large percentage of cases becomes chronic. Lymphatic infection extends upward as far as the regional lymph nodes and also deeply to involve the perivascular lymphatics. In this way organisms can gain entrance to the walls of the deep vessels. As a result of the arteritis so produced, calcification occurs. The calcification of the vessel may be in part responsible for the decrease in the arterial supply of the extremity and in this way a vicious circle is produced. As the nutrient vessels entering the tibia and fibula are also involved, changes in these bones may occur. Extensive bone changes, such as periostitis and even chronic forms of osteomyelitis, occur in patients who have had the varicose ulcer

for long periods of time. According to Heiner,¹⁶ the two most frequent sequelae of the "varicose complex" are periostitis and Sudek's bone atrophy. In his series of cases, periosteal changes were found in 20 per cent. The bone changes are not only found beneath the ulcer, but characteristically involve the entire tibia or fibula or both. Phlebitis of the superficial veins may occur, the infection originating in the region of the ulcer. This complication, however, occurs much less frequently than one would imagine. Erysipelas is also an infrequent complication. Further complications of varicose ulcers are: extensive cicatrization, and malignant change developing on the base of an ulcer (Marjolin's ulcer, which fortunately is relatively rare). Due to the presence of the rolled, indurated edge the latter condition should be suspected in an ulcer which has persisted for a long period of time. The diagnosis, however, can be made only by a microscopic examination of an excised specimen.

TREATMENT OF VARICOSE ULCERS.

The treatment of varicose ulcers is largely one of prophylaxis in that ulcers should never be allowed to develop in the case of varicose veins. As varicose ulcers are produced by trauma and infection of tissues, the vitality of which has been decreased as a result of venous stasis, the prophylactic treatment of varicose ulcers consists of the relief of venous stasis and the avoidance of trauma and infection. The venous stasis and increased venous tension in a varicose vein may be relieved palliatively by supporting the veins or more or less permanently by either obliterating the vein or extirpating it. The injection methods have largely replaced the operative measures in the treatment of varicose veins. The injection treatment consists of introducing into the lumen of the vein, corrosive substances which produce an endophlebitis. As a result of injury to the intima of the vein a sterile thrombus, which later becomes organized, is formed. Because of its simplicity and safety and because the method

may be performed as an ambulatory type of treatment, the injection of varicose veins represents probably the ideal treatment at the present time. The reports of Sicard,¹⁷ Nobl,¹⁸ Meisen,¹⁹ McPheeters,²⁰ Forestier,²¹ DeTakats,²² Kilbourne,²³ and others emphasize the reliability of this type of therapy. Kilbourne²³ found from a statistical study of questionnaires sent to most of the large American hospitals the following facts: Of 4,607 cases of varicose veins in which excision had been performed one fatality occurred in every 250 cases. In over 53,000 cases of varicose veins treated by injection, less than one death occurred in 4,000 cases. Recurrence after operation averaged 30 per cent, whereas the average recurrence after injection was 6 per cent. That this latter percentage of recurrence following the injection treatment is probably too low is suggested by a recent report of Howard, Jackson, and Mahon,²⁴ in which recurrences occurred in 79 per cent of all patients treated, or 98 per cent of all those which were followed a year or more. That recurrence is not only possible but also probable is evidence by the experimental work of Ochsner and Garside,²⁵ in which it was found that canalization of the thrombi produced by the injection of sclerosing substances into the veins of animals almost invariably occurs.

The solutions which have been used as sclerosing agents are sodium chloride in 15, 25, 30, and 40 per cent solutions; sodium salicylate in 10, 15, 25, 30, and 40 per cent solutions; glucose, 50 per cent solution; bichloride of mercury, $\frac{1}{2}$ to 1 per cent solutions; invert sugar, 50, 60, and 75 per cent solutions; quinine and urethane solution; and various combinations of the above solutions, especially glucose and sodium chloride, glucose and sodium salicylate, sodium salicylate and invert sugar. Hypertonic solutions of sodium chloride and sodium salicylate are powerful and efficient sclerosing substances, but have the distinct disadvantage of producing marked pain and muscular cramp immediately fol-

lowing the injection and a slough if a perivenous injection is made. For this reason, many authors feel that the employment of less caustic solutions such as glucose and invert sugar is to be desired. These latter solutions, because of their less irritating effect, are less efficacious. As a sclerosing agent, invert sugar is to be preferred to glucose, because it may be used in higher concentrations, as invert sugar solutions are less viscid than glucose solutions. A quinine and urethane solution has several advantages; *i. e.*, it may be used in small quantities ($\frac{1}{2}$ c.c. to 2 c.c.) and is painless. However, the use of quinine and urethane is contraindicated during pregnancy, during menstruation, and in patients in whom there exists an idiosyncrasy to quinine. Mercurial solution seldom are employed at the present time, because of the extreme toxicity of the drug, and the danger of mercurial poisoning. It may be said that there is no one solution the use of which is applicable in all types of veins. It also should be emphasized that there is considerable variation in the response of different veins to the action of the sclerosing substances in that in one vein a severe endophlebitis may result from the injection of a relatively mild irritant, whereas in another vein the use of relatively large quantities of extremely irritating solutions will produce little change. For this reason it is advisable in all cases to begin with small quantities and dilute solutions until the degree of reaction can be determined for that particular vein. Probably the ideal solution is a combination of sodium salicylate, 15 per cent, and invert sugar, 50 to 75 per cent, because it is an efficient sclerosing agent, produces little or no pain, and is less apt to result in a slough if a perivenous injection is made.

The contra-indications to the injection treatment of varicose veins are: 1. Acute phlebitis (no injection should be made within six months after the disappearance of all the clinical signs of the infection); 2, ob-

struction in the deep circulation, in which case the superficial veins serve to conduct the blood from the lower extremity. The treatment may be used in all other cases, but care must be taken that use of a particular sclerosing substance is not contraindicated; *i. e.*, quinine and urethane in pregnancy, sugar solutions in diabetes, etc. The injection of sclerosing substances into the lumen of varicose veins produces an obliteration of the vein, which may be obtained either through the medium of a clot or by approximation of the two injured surfaces of intima. Because of the almost invariable occurrence of canalization of the artificially produced thrombus, compression of the vein so that the damaged intimal surfaces may be approximated is preferable. In this way obliteration of the vessel is produced with the production of a minimal amount of clot, which obviously diminishes the danger of embolism, and obliteration is accomplished with relatively little chance for recurrence, as little or no thrombus is present to become canalized. The importance of this has been recently emphasized by Kern. The majority of cases of varicose veins may be successfully treated by injection. In those cases in which recurrence occurs, reinjection may be employed in some, but surgical extirpation may be necessary in others. In some few cases, especially those in which the varicosities are located principally in the thigh, surgical extirpation of the veins will probably be necessary.

The active treatment of varicose ulcers consists, first, in combating the infection, which is almost invariably present. The ulcer which is badly infected should be treated as any other infected wound. Physiologic rest of the extremity and the application of hot, wet dressings to the ulcer are of great therapeutic value. Hypertonic solutions are preferable to either isotonic or hypotonic solutions. Elevation of the extremity is extremely important in badly infected ulcers. Frey¹⁴ has shown that patients with varicose

ulcers almost invariably show a "latent" edema of the extremity. This edema is due to venous stasis and in part due to the associated inflammation. The edema, even though only "latent", must be corrected by some type of support to the extremity. Nobl,¹⁰ in 1924, advocated the compression treatment of varicose ulcers, which consisted of bandaging the extremity and producing pressure on the ulcer by a sterile rubber sponge applied directly over it. Relatively recently the compression treatment of varicose ulcers has been emphasized by Wright,^{26, 27} Deville,² Davies and Drynan,²⁸ who employ an elastic bandage (elastoplast), which tends to compress the extremity and prevent the formation of edema. Wright²⁶ reports a series of 478 healed ulcers in 324 patients in which there was a total area of 1,480 square inches of ulceration. The average rate of healing was one square inch in 5.1 days. Davies and Drynan²⁸ believe that employing the technic of Wright it is possible to calculate mathematically the length of time which will be necessary to cure the ulcer. Their calculation is as follows:

The area of the ulcer in square inches $\div 5 + 3 =$ time in weeks.

The use of the Unna's paste boot is, according to the author, preferable to other types of bandage in the treatment of varicose ulcers in spite of the possible disadvantage that it is technically somewhat more difficult to apply than are the elastic plaster bandages. The Unna's paste boot is beneficial not only because of the support it gives the extremity but also because of the hygroscopic and slight antiseptic properties of the zinc oxide, gelatin, and glycerine paste. By the use of the boot the secretion from the ulcer is completely absorbed so that maceration of the surrounding skin is prevented. The boot is applied directly over the ulcer and serves as a scaffold along which the epithelium may grow. Thomas,¹ in 1910, showed that the average time saved a patient with chronic ulceration of the leg by employment

of the Unna's paste boot in a series of 42 cases was 105.2 hours. The average time saved the surgeon was 5.56 hours, and the average amount saved in dressings was four dollars and ninety-seven cents. The savings in the cost of dressings varied from thirty-five cents to fifty-three dollars. The amount of time saved the surgeon varied from 2 hours to 35 hours, whereas that saved the patient was from 4 hours to 17 days. Unna's paste boot has many advantages over elastic bandages and stockings. The boot must be worn continuously and cannot be reapplied by the patient once it is removed. In this way a constant pressure is maintained on the extremity, and it is not possible for the patient to arise in the morning without applying the bandage. An Unna's paste boot is flexible but inelastic. Irrespective of the grade of rubber which is employed in elastic stockings or elastic bandage, deterioration and permanent stretching occurs, so that even though an elastic stocking may conform perfectly to the extremity immediately after its construction, within a relatively short period of time it has lost a certain degree of elasticity and no longer fits the leg. As the edema disappears from the extremity, the leg becomes smaller. A new boot may be applied with relatively little cost, whereas an elastic bandage or stocking may be too expensive to renew after one to two weeks. It is extremely important before applying an Unna's paste boot to decrease the edema of the part as much as possible by having the patient elevate the extremity from 15 to 20 minutes. The paste, as originally advocated by Unna, consists of four parts each of zinc oxide and sheet gelatine and ten parts each of glycerine and water. It is prepared in the following manner: Ordinary sheet gelatine, after being soaked over night in the water, is heated over a water bath. To this, zinc oxide and glycerine are slowly added. The mixture when warm is fluid and when allowed to cool is gummy and gelatinous. The technic of the appli-

cation of the boot is briefly as follows: The knee is flexed to a right angle, the foot is flexed on the leg to an angle of less than 90 degrees and is held by an assistant. A towel, placed around the thigh, is held by the patient, thus keeping the knee flexed. Employing a roll of bandage, two or three turns are made at the upper extremity of the leg just below the knee. A similar bandage is applied over the metatarsophalangeal joint. By means of paint brushes, warm Unna's paste is applied over the entire unshaved leg, including the ulcer, care being taken not to cover the upper portion of the upper bandage or the lower portion of the lower bandage. After the entire leg is covered with paste, the bandage is applied, care being taken to prevent any wrinkles or creases. This is accomplished by cutting the bandage when reversing seems necessary. As the bandage is applied, the Unna's paste is painted over it, the bandage and paste being applied directly over the ulcer. Longitudinal as well as circular strips of gauze are applied to strengthen the boot. Several layers of gauze and paste are applied in this manner. After the application of the boot, ten or fifteen minutes are allowed for it to dry after which talcum powder is dusted on the surface. In order to keep the boot clean a white cotton stocking, which may be removed and washed, may be worn. The length of time which a patient with a varicose ulcer may wear a boot depends upon the amount of discharge. In those cases in which there is considerable secretion the boot can be worn from a few days to two weeks. It is, however, desirable to change the boot as soon as the secretion saturates that portion of the boot overlying the ulcer. Practically all varicose ulcers will respond in a very short time to the above outlined treatment. However, in some cases in which the ulceration is extensive, it may be necessary to resort to skin grafting, which, however, is exceptional. Occasion-

ally, in old, neglected cases of varicose ulcer because of the marked lymphatic obstruction a lymphangostomy, as advocated and practiced by Trout²⁹, Mason³⁰, and others, becomes necessary.

SYPHILITIC-ULCERS.

Second only to varicose ulcers, syphilitic ulcers represent an important type of chronic ulceration of the lower extremity, especially in the South, where there is a large negro population. Practically all syphilitic ulcers are caused by the breaking down of cutaneous or subcutaneous gummata. A gumma is a late manifestation of syphilis, occurring in the tertiary stage. Whereas gummata may occur at any time during the course of infection, they usually do not occur until at least two years after the initial lesion. Gummata occur most frequently on the upper half of the leg, the face, the trunk, the arms, and the scalp. They appear as firm cutaneous nodules, which gradually enlarge. These nodules are composed of large areas of leukocytic and plasma cell infiltration. An extensive peripheral endarteritis, producing an obliteration of the vessels supplying the area, leads to a massive central necrosis with the production of a gummy-like material. Such nodules rupture either spontaneously or more frequently following trauma with the production of an open lesion from which discharges a gummy material. Trauma plays an important role in the production of an ulcer in syphilis. Syphilitic ulcers, as other luetic manifestations, are likely to be bilateral and are usually multiple. As gumma occur more frequently in the upper third of the leg, it is at this site that syphilitic ulcer is most likely to occur. However, not infrequently, syphilitic ulcers may occur in the lower portions of the leg. Goodman¹³ has shown that ulceration occurring on the right leg is very frequently syphilitic. Of 25 cases of ulcer involving only the right side, 6 were clinically syphilitic, and only 40 per cent

of these patients had a negative Wassermann reaction. Syphilitic ulcers are characteristically painless, unless there is a considerable amount of secondary infection, at which time the pain and tenderness depend upon the degree of inflammation. A typical syphilitic ulcer (one in which there is relatively little secondary infection) is either round or crescentic, and is produced by the breaking down of a gumma. It is deep and has a punched out appearance, due to the evacuation of the necrotic center of the gumma. The base of the ulcer is covered with granulation tissue, which does not resemble normal, healthy granulation tissue and is often described as resembling "washed leather." Usually there is some secondary infection, and for this reason syphilitic ulcers do not appear as the typical lesion described above. Because of the secondary infection, the ulcer extends, producing a considerable loss of tissue, the defect being irregular in shape and size. Immediately surrounding the ulcer is a narrow area of pigmentation which, as a rule, persists after the ulcer has healed. The healing of the ulcer occurs by cicatrization, the scar being deeply pigmented for many years. The discharge from a non-infected syphilitic ulcer is at first of a gummy character, which is produced by the breaking down of the gumma; later the discharge becomes thin. If considerable secondary infection is present, the discharge not infrequently is seropurulent. *The odor of a syphilitic ulcer is characteristically foul and is of great diagnostic significance.* It is usually possible to diagnose a luetic ulcer merely by the odor. The characteristic odor is not generally appreciated by physicians, but frequently it is the odor in addition to the ulceration which brings the patient to the physician.

The treatment of syphilitic ulcers is largely one of prophylaxis. Adequate prophylactic treatment in cases of syphilis will prevent the production of ulcers. In the presence of gummata, care should be taken to prevent trauma and infection, which

may result in ulceration. The active treatment of syphilitic ulcers consists also of anti-syphilitic treatment, as well as the treatment of the ulcer itself. Iodides (relatively large doses up to 75 or 100 grains a day) and spirocheticides should be administered. In the presence of marked infection hot hypertonic solutions should be applied to the ulcer. As in the case of varicose ulcer as advocated by DeTakats⁷, Ochsner and Garside³¹, the application of a compression bandage, especially an Unna's paste boot, is of great value, as almost invariably there is an associated venous and lymph stasis. In long standing syphilitic ulcers healing is likely to be markedly prolonged even in spite of very active treatment, because of the endarteritis and its associated diminished blood supply. If, however, stasis is relieved, infection combated, and antisiphilitic treatment instituted, most syphilitic ulcers will heal.

SICKLE CELL ANEMIA ULCERS.

One of the not infrequent causes of chronic cutaneous ulceration of the lower extremities in the negro race is sickle cell anemia. Ulceration of the lower extremity is one of the common findings in sickle cell anemia and has been described by most of the authors who have reported cases of this disease. According to Huck³², "sickle cell anemia may be defined as an hereditary disease transmitted by and occurring in both males and females with equal frequency, in which the red cells of the blood acquire a sickle or crescent shape in vitro. The disease is characterized by certain clinical symptoms, especially those of anemia and leg ulcer. All cases so far observed have occurred in the negro race." The cause of the cutaneous ulceration in sickle cell anemia is not known.

Pathologically, the ulcer which occurs in sickle cell anemia does not differ remarkably from a simple, inflammatory ulcer. According to Huck³², the papillæ of the epithelium near the edge of the ulcer are thinned remarkably, and in the corium the connective tissue is increased in amount.

There is an increase in the mononuclear cells, as well as the plasma and large mononuclear cells. At the edge of the ulcer the epithelium shows little tendency to grow downward. The base of the ulcer is composed of granulation tissue and there is a total absence of necrotic membrane covering it. In those areas in which there are blood vessels, sickle cell shaped red blood cells can be seen. Clinically, the ulcers are found usually in the region of the malleoli and occasionally on the dorsum of the foot or on the leg. They are usually round, have a punched out appearance, and in this respect are not unlike syphilitic ulcers. They are shallow, and the edges are indurated. According to Klauder³³, they may be multiple or single, unilateral or bilateral. They may occur spontaneously, but usually follow trauma, which is usually of a mild degree. According to Steinberg³⁴, they vary in size from 1½ cm. to 7 cm. in diameter. The prognosis as far as the ulcer is concerned is good, as simple rest in bed, the application of a mild ointment, such as zinc oxide ointment, almost invariably results in a cure. However, ulceration is apt to recur. The scar which is formed is, according to Steinberg³⁴, glossy, smooth, and without pigment, but is surrounded by a pigmented skin. In all young negroes in whom ulceration occurs in the region of the ankle, feet, or lower portion of the leg, the possibility of sickle cell anemia ulcer must be considered. Because of the character of the ulcer, it is apt to be confused with syphilis. However, in sickle cell anemia the characteristic odor is lacking. Positive diagnosis is made by an examination of the blood which will reveal a typical sickle or crescentic shape of the erythrocytes. Cases of sickle cell anemia with ulceration of the lower extremities have been reported by Herrick,³⁵ Washburn,³⁶ Cook and Meyer,³⁷ Huck,³² Sydenstricker,³⁸ Dreyfoos,³⁹ Browne,⁴⁰ Steinfield and Klauder,³³ Alden,⁴¹ and Rich.⁴²

MYCOTIC ULCERS.

Mycotic ulcers of the extremities are fortunately rare, but occur more frequently

than is generally supposed by the medical profession. The possibility of a mycotic infection should be considered in all cases of atypical ulceration, which do not present the characteristics of either varicose or syphilitic ulcers. The etiologic factor in mycotic ulcers is the specific fungus which gains entrance to the body usually following trauma. The condition is largely an occupational disease, and the lesions are found almost entirely upon the exposed parts, either the lower or upper extremities. White⁴³ is of the opinion that in cases of mycotic dermatitis a decrease in the arterial blood supply produced by obliterative endarteritis is responsible for the persistence of the lesion and also the ulceration.

BLASTOMYCOSIS.

Blastomycosis is the most frequently encountered mycotic ulcer of the extremities. The original lesion consists of a papule which usually follows a trivial injury. The papule extends peripherally and ulceration occurs. Characteristically there is a tendency for central healing with peripheral extension. The edges of the ulcer are raised and sharply defined. Multiple abscesses containing a mucopurulent material are usually situated beyond the periphery of the actual ulceration. These abscesses may rupture, producing numerous peripherally located ulcers from which drains a mucopurulent material containing the specific fungus. The lesions are painless. The edges of the ulcer are usually separated from the normal skin by a distinct hyperemic zone.

ACTINOMYCOSIS.

The actinomycete, or ray fungus, may be the etiologic factor in chronic cutaneous ulceration of the lower extremities. The condition is characterized by multiple cutaneous and subcutaneous chronic abscesses. The abscesses rupture spontaneously or more frequently are incised, resulting in ulcer formation. The wall of the abscesses and subsequently the wall of the ulcer is composed of granulation tissue beyond which is a layer of dense, fibrous tissue. Characteristically, multiple sinuses and

ulcers from which exude a thick, yellow pus, in which the sulphur granules may be demonstrated, are present.

SPOROTRICHOSIS.

Sporotrichosis occurs relatively infrequently on the lower extremities, it being found much more frequently in the upper extremities. It is characterized in the beginning by red, painless nodules associated with ascending lymphangitis and localized lymphadenitis. Multiple ulcers occur along the course of the lymphatic chain. These ulcers are characterized by overhanging edges and exuberant granulation tissue. The discharge consists of thick, yellow pus.

All mycotic ulcers have a rather characteristic musty odor, which has been compared by Beven to that of freshly turned sod. The diagnosis is made by finding the fungus, which may be in the discharge from fresh lesions, but which in old long standing lesions can be demonstrated only in scrapings from the wall of the ulcer.

Treatment of all mycotic ulcers consists of adequate surgical drainage of all those foci which are already draining and curettage of the ulcer in order to remove as much of the disease process as is possible is desirable. Local extirpation of the lesion may be accomplished in small lesions. Massive doses of iodides, either in the form of potassium or sodium iodide in doses up to 1,000 to 1,500 grains daily, are administered. It is well to begin with doses of 25 to 30 grains three times a day, and increase this 15 grains daily. Roentgen-ray or radium radiation in massive doses constitutes the best method of treatment.

TUBERCULOUS ULCERS.

Tuberculous ulcers, fortunately, occur very infrequently in the United States, whereas they occur not uncommonly in Europe. This is true not only of cutaneous ulceration but is also true of other types of surgical tuberculosis and is probably due to the fact that in the United States careful pasteurization of milk and control of cattle herds, as regards tuberculous infection, are usually practiced. A tuber-

culous ulcer is the result of the breaking down of a tuberculoma and is usually initiated by trauma. It usually occurs in a widespread tuberculous infection. It is found most frequently in girls under the age of twenty. The ulcers occur in the upper part of the leg, usually the calf, and are usually bilateral. The ulcers are small, multiple, and extremely painful, the pain being a prominent part of the symptom complex. The edges of the ulcer are undermined even for a considerable distance, so that sloughs occur around the periphery of the ulcer. Discharge from the ulcer is glary, mucoid, and scant. The base of the ulcer is pale and is either covered with no granulation tissue or frequently with large, edematous, pale granulations. Surrounding the edge of the ulcer a pigmented area usually exists. A large ulcer is usually produced by coalescence of several small ones. As tuberculous ulcers heal, they tend to form considerable cicatrix, which at times produces deformity.

The treatment of tuberculous ulceration of the extremities is often unsatisfactory, because of the generalized tuberculous infection present. Treatment consists of general hygienic care and the treatment of the systemic tuberculosis. In addition, the local and general application of ultraviolet ray therapy is of distinct value. Roentgen ray and radium radiation in relatively small doses is often of distinct value in tuberculous involvement of the skin.

TROPHIC ULCERS.

Ulceration is especially prone to occur in all conditions in which there is trophic change of the skin. The initiating cause of the ulcer is almost invariably a trauma, the lesion failing to heal, however, because of the trophic change in the skin. Trauma is especially favored by the anesthesia which is usually present in these cases. The conditions which are usually responsible for the trophic changes are affections of the spinal cord, peripheral nerve lesions, and certain systemic diseases. The most frequent affections of the spinal cord producing trophic changes are tabes dorsalis,

fracture of the spine with cord injury, syringomyelia, and spina bifida. Peripheral nerve lesions consist of nerve injury and peripheral neuritis, whereas the systemic diseases responsible for trophic changes are diabetes mellitus and arteriosclerosis. The changes which occur in the skin and subcutaneous tissue following division of peripheral nerves are described as follows: The analgesic portion becomes swollen, the surface of the skin becomes rough, the skin becomes inelastic and wrinkled. The affected portion is drier than the unaffected portion and is of deeper red color. Because of the analgesia, repeated trauma is likely to result, as the protective sensory reflexes have been abolished. In addition to this, because of the trophic disturbance in the skin, the resistance of the part is lowered which favors ulceration. The classical trophic ulcer is the perforating ulcer which occurs in *tabes dorsalis* and which is found on the plantar surface of the foot, usually on the big toe or the ball of the foot. The ulcer is round and extends down to the joint or bone. Before an ulcer is noticed, the callus usually appears at the site. Beneath this callus, infection usually occurs. Following removal of the callus the ulcer appears. The skin surrounding the ulcer is thickened and calloused. There are varying degrees of secondary infection. Changes in the underlying structures, especially the bones, are associated with cutaneous ulceration. In most trophic ulcers there is an analgesia of the surrounding skin and the ulcers. The ulcers are, therefore, painless. The discharge from the ulcer is a watery pus with a foul odor. The condition is resistant to most forms of therapy.

The treatment of trophic ulcers consists first of prophylaxis. In individuals with nerve lesions, especially those exhibiting areas of anesthesia, careful avoidance of trauma is necessary. Absolute cleanliness of the extremities in order to prevent secondary infection, should ulceration occur, is also imperative. The active treat-

ment of trophic ulcer consists of combating the secondary infection by physiologic rest, the application of hypertonic solutions, and an attempt to increase the blood supply to the part by the application of heat. Heat must, however, be used cautiously in those cases in which analgesia is present, as a burn is very apt to occur. The excessive callus which usually surrounds the ulcer should be removed, as it interferes with healing. The underlying condition causing the trophic changes should be treated.

SUMMARY AND CONCLUSIONS.

Chronic cutaneous ulceration of the lower extremities represents a difficult problem. The ulceration is almost invariably a symptom of an underlying diseased process. Therefore, any therapy directed toward this one clinical manifestation of the condition without a correction of the underlying pathologic lesion is of no or little value. In order to treat chronic cutaneous ulcerations properly it is essential that a correct diagnosis be made and that each case be individualized and the disturbed physiology corrected. As most chronic ulcers of the leg are infected, every attempt should be made to combat the infection, especially in the presence of acute infection, by the use of hypertonic dressings. An edema, the result of venous and lymph stasis, is almost invariably associated with all types of chronic "leg ulcers." In order to obtain the best results in the treatment of these ulcers, this edema must be relieved, which is best accomplished by the use of supportive dressings such as Unna's paste boots.

REFERENCES.

1. Thomas, B. A.: The treatment of leg ulcers by the gelatin-glycerin-zinc oxide paste dressing, *Univ. Penn. M. Bull.*, 23:365, 1910.
2. Deville, P. M.: Treatment of varicose ulcers, *Brit. Med. Jour.*, 2:1000, 1930.
3. Steubner, Roland W.: Varicose veins; their treatment by the injection method, *Surg., Gynec., and Obst.*, 51:169, 1930.
4. Mangus, G.: Zirkulationsverhältnisse in Varicen, *Deut. Zeit. f. Chir.*, 162:71, 1921.
5. Schaefer, W.: Ueber Blutuntersuchungen bei Varicen, *Arch. f. klin. Chir.*, 136:661, 1925.

6. Klapp, R.: Experimentell und klinische Studie über Varicen, Arch. f. klin. Chir., 127:500, 1923.
7. DeTakats, Geza; Quint, Harold; Tillotson, B. I., and Crittenden, P. J.: The impairment of circulation in the varicose extremity, Arch. Surg., 18:671, 1929.
8. Franke, M.: Alkali reserve of venous blood in experimental venous stasis: relation to edema, Compt. rend. Soc. de Biol., 99:925, 1928.
9. Marcovici, E. E.: An efficient treatment for varicose ulcers, Arch. Dermat. and Syph., 18:290, 1928.
10. Nobl, G.: 'Druckbehandlung von Stauungsgeschwü- ren, Wien. klin. Wchnschr., 37:644, 1924.
11. McPheeters, H. O.: The injection treatment of varicose veins by the use of sclerosing solutions, Surg., Gynec., and Obst., 45:541, 1927; Ulcer cruris, Surg., Gynec., and Obst., 47:469, 1928.
12. Baerthlein, K.: Ueber die Bakterienflora des Ulcus cruris varicosen, Zentralbl. f. Bakteriöl., 94:1, 1929.
13. Goodman, Herman: Ulcer of the leg. Its localization as a point of differential diagnosis, Arch. Dermat. and Syph., 6:179, 1922.
14. Frey, S.: Regionale Stoffwechselstörungen bei Varizen, Med. Klinik, 21:1158, 1925.
15. Morris, D. H.: The deeper structural changes arising from varicose ulceration, Surg., Gynec., and Obst., 30:72, 1920.
16. Heiner: Aetiology und Therapie der Stauungerscheinehen in den unteren Extremitäten, Verhandl. d. deutsch. orthop. Gesellsch. Kong., 20:472, 1926-27.
17. Sicard, J. A. and Gaugier, L.: Le Traitement des Varices per la Methode Locale Sclerosante, Paris, Masson et Cie, 1927.
18. Nobl, G.: Die Calorose als Verödungsmittel varikose entarteter Venen, Wien. klin. Wchnschr., 39:1217, 1927.
19. Meisen, V.: Injection treatment of varicose veins and their sequelae, Acta chir. Scandinav., 40:435, 1926.
20. McPheeters, H. O.: Varicose Veins: The injection versus the operative treatment, Surg., Gynec. and Obst., 48:819, 1929.
21. Forestier, Jacques: Varices of lower limbs, Jour. Am. Med. Assoc., 90:1932, 1928.
22. DeTakats, Geza and Quint, H.: The injection treatment of varicose veins, Surg., Gynec., and Obst., 50:545, 1930.
23. Kilbourne, W. J.: Treatment of varicose veins of the legs, Jour. Am. Med. Assoc., 92:1320, 1929.
24. Howard, N. J.; Jackson, C. R.; and Mahon, E. J.: Recurrence of varicose veins following injection, Arch. Surg., 12:353, 1931.
25. Ochsner, Alton and Garside, Earl: In press.
26. Wright, A. D.: The treatment of varicose ulcer, Proc. Roy. Soc. Med. (Section on Dermatology), 23:30, 1930.
27. Wright, A. D.: Treatment of varicose ulcers, Brit. M. J., 2:596, 1930.
28. Davies, J. H. T. and Drynan, A. E.: Chronic ulcer of the leg treated by the method of Dickson Wright, Brit. Med. Jour., 2:988, 1930.
29. Trout, Hugh: A new principle in the treatment of ulcers to the varicose veins and lymphatic blockage, Trans. South. Surg. Ass., 41:57, 1928.
30. Mason, J. T.: Lymphangioplasty in the treatment of some leg ulcers, Northwest. Med., 7:321, 1915.
31. Ochsner, Alton and Garside, Earl: Chronic leg ulcers, Texas State J. Med., 25:587, 1930.
32. Huck, J. G.: Sickie-cell anemia, Bull. Johns Hopkins Hosp., 34:335, 1923.
33. Steinfeld, E. and Klauder, J. V.: Sickie-cell anemia, Med. Clin. N. A., 10:1561, 1927.
34. Steinberg, B.: Sickie-cell anemia, Arch. Path., 9:876, 1930.
35. Herrick, J. B.: Peculiar elongated and sickle-shaped red blood corpuscles in a case of severe anemia, Arch. Int. Med., 6:517, 1910.
36. Washburn, R. E.: Peculiar elongated and sickle-shaped red blood corpuscles in a case of severe anemia, Virginia Med. Semi-Monthly, 15:490, 1911.
37. Cook, J. E. and Meyer, J.: Severe anemia with remarkable elongated and sickle-shaped red blood cells and chronic leg ulcer, Arch. Int. Med., 16:644, 1915.
38. Sydenstricker, V. P.: Further observations on sickle-cell anemia, Jour. Am. Med. Assoc., 83:12, 1924.
39. Dreyfoos, M.: Sickie-cell anemia, Arch. Pediatrics, 43:436, 1926.
40. Browne, E. L.: Sickie-cell anemia, Med. Clin. N. A.; 9:1191, 1926.
41. Alden, H. S.: Sickie-cell anemia; report of two cases from Ohio illustrating its hemolytic nature, Am. Jour. Med. Sc., 173:168, 1927.
42. Rich, A. R.: The splenic lesion in sickle-cell anemia, Bull. Johns Hopkins Hosp., 43:398, 1928.
43. White, C.: Dermatomyositis of extremities with peripheral occlusive endarteritis, Jour. Am. Med. Assoc., 90:1865, 1928.

DISCUSSION.

Dr. George Wright (Monroe, La.): No physician or surgeon exists who has not at some time been harassed by patients with this dreadful and more or less loathesome condition. It must be viewed from two angles, the disease which brings on the ulceration and the ulceration itself. We are too often inclined to treat the lesion and overlook the constitutional manifestation which is really far more important. Ulcers practically always exhibit some venous stasis, which reaches its climax in varicose ulcers and which is seen to a lesser degree in tuberculous ulcers. Therefore, after the local and constitutional disease has been diagnosed, the problem of treatment presents itself as both local and constitutional. Syphilitic ulcers demand specific treatment, mycositic ulcers must be treated with iodides, and so on. Then the local lesion must be considered, the relief of the venous stasis, the restoration of the drainage which has been interfered with. Ulcers of the chronic variety are usually infected.

They have usually been treated with pastes and ointments, sometimes for two or three years, which increases the difficulties of drainage. In all cases the tissue spaces, the lymphatics and the capillaries are blocked by devitalized tissue, and there is always pus present.

The treatment must first of all be directed towards securing rest for the part, though it is perfectly possible to have the rest treatment applied in an ambulatory patient. Up to two years ago we treated all badly infected cases by the open method, and some of you who are present may recall that I read a paper on the subject, which Dr. Cohn discussed, I believe. We put the patient to bed, we employed a special apparatus which fastened over the leg and which permitted as many drips as we wanted, and we irrigated the affected parts with a hypertonic salt solution, the leg being elevated. This cleared up the infection and reduced the edema, and it seems a rational treatment in view of the findings which the laboratory gives us: the veins in the neighborhood of ulcers show a diminution of the oxygen content, an increase in the CO₂ combining power, and also an increase in the protein nitrogen. These findings are always apparent in the veins of the lower extremities, I believe, but they are exaggerated in ulcers. After the local condition has been benefited by the treatment described, we use skin grafts, and for the next few days we keep the wounds covered with hot compresses of hypertonic salt solution, after which we return to the drip. The ulcerated area heals under this treatment at the rate of about a square inch each four days, the healing being more rapid after the skin grafting is done.

During the last two years we have been more and more inclined to use the Unna boot as advocated by Ochsner and Cutting, but it is not adapted to all cases, particularly those in which the ulceration is on the dorsum of the foot or is confined to the malleoli of the ankle.

Dr. E. L. Sanderson (Shreveport, La.): Dr. Wright and I are in the same position as two hard-shelled preachers who were attending a convention. The moderator decided it would be a good plan to have everybody begin by reciting a verse of Scripture. They sat in the back of the room, and the supply of verse got lower and lower, and when they were finally called on, it was very low indeed. So the first of them rose, in response to his name, and recited the verse, "Jesus wept", and the other, rising in response to his name, simply said, "He sure did."

That is the way I feel because Dr. Ochsner has covered the field so thoroughly. I shouldn't be surprised if this disease was not known in Biblical times. I have always thought it was what troubled Lazarus. You remember, the dogs licked

the sores on his legs. And I have often wondered if they did not cure him. You have probably noticed, as I have, how rapidly the wounds of dogs heal if they are only so located that they can be reached by the tongue. There seems to be something very effective in the dog's saliva.

Another interesting point is the rapidity with which wounds heal in which maggots develop. I had a curious experience with that sort of case. I saw a tramp with ulcers of the leg, and I simply looked at him. I didn't touch him. Later I heard of him in another town, and by that time he had gotten a lawyer and was going to sue me because maggots had appeared in his wounds, even though I had merely looked at them. But before he could get around to blackmailing me, the ulcers healed and I am sure he was very much disappointed.

We feel relieved that Dr. Ochsner has not advanced an absolute cure for sore legs; just think what future medical students would miss if all the leg ulcers were cured.

Dr. Ochsner's paper is a classic, as we expected. There is nothing to add.

Dr. B. C. Garrett (Shreveport, La.): Last summer I came across Dr. McPheeters' book on varicose veins, and since I was going north, I thought I would stop in and see how his treatment worked out. When I reached Minneapolis, I have never gone through such a crowd of tramps as I had to pass through from the station to the hotel, and the manager of the hotel explained their presence on the ground that two mills had just closed. But next day I found about half of them in Dr. McPheeters' clinic.

I was very much interested in his treatment. He takes a sponge, he says the variety makes little difference, covers the ulcer with it, and then uses an Ace bandage to wrap the leg, beginning from the ankle and working up to the knee. He makes the patients walk around, he will not permit them to go to bed. I saw many cases in which the benefit was apparently miraculous under this treatment. He also uses the injection treatment, in some instances carrying the injection clear up to the internal saphenous. But there were some he did not cure, especially some old ladies, who were quite frank about how long they had been coming. I was glad to see, too, that even such an authority has his failures, for I have so many I should have felt very much upset if I had gone elsewhere and seen only cures.

Dr. J. D. Rives (New Orleans): I admire Dr. Ochsner's name for chronic leg ulcers. I have been treating them for twelve years without collecting five cents on any of them, and "Poor mans' disease" is the proper term.

I rise to discuss the syphilitic type of ulcer, which most essayists seem to avoid. I want to

protest against the statement that they exhibit definite characteristics. I do not consider that they do. I have not tabulated the figures, but I know they are not confined to the upper third of the leg, I am quite sure they are seen in just as great numbers in the lower third of the leg. Nor do I consider the physical findings characteristics. They may be characteristic before secondary infection sets in, but the physician does not see them in that stage once in a hundred times. They are usually a year old when he gets them. All ulcers look alike after secondary infection has destroyed the characteristics which undoubtedly were present in the first stages.

We have found the roentgen ray of great value in the differential diagnosis, and I should preface that statement with the statement that we find the Wassermann of no value. The incidence of positive Wasserman is no higher in patients with syphilitic ulcers than it is in the general population. But the roentgen ray does show a characteristic periostitis to be almost invariably present in the bones of the leg. Of course the area directly beneath the ulcer and in the vicinity will show this periostitis in any case, and I do not refer to that localized manifestation. But if there is an ulcer on the outer side of the leg and a periostitis of the tibia, or an ulcer on the inner side of the leg and a periostitis of the fibula or, more convincing still, an ulcer of one leg and a periostitis of the bones of the other leg, then coincidence can be ruled out, and the case written down as definitely syphilitic, no matter what the Wassermann does or does not show. The roentgen ray diagnosis in the late stages is as safe as the Wassermann diagnosis in the early stages. We employ this method routinely in our clinic at Touro, with the excellent co-operation of Dr. W. F. Henderson, and we consider it extremely valuable.

I might add one other comment: I wonder that Dr. Ochsner did not comment in the discussion of trophic ulcers on the possibility of leprosy of the neurological type. I am sure he has seen such cases, and simply failed to mention the possibility.

Dr. Alton Ochsner (closing): Dr. Wright's suggestion of continuous irrigation for patients with badly infected ulcers is excellent. We all like to keep our patients ambulatory, but we gain time, frequently, by putting them to bed for a few days. The compression bandage is always applied with more efficacy when this form of treatment has been first employed. I might say at this point that any compression bandage, especially Unna's boot, is best put on when edema of the extremity has been absolutely eliminated. The ideal method is to put it on the morning, before the patient arises, and this is possible in hospital cases. Office patients should be required to rest

on a couch for half an hour, with the foot and leg elevated, to secure the same conditions.

Dr. Sanderson's story of the tramp who was going to sue him impressed me not only from the aspect of the maggots but also from the lesson that it carried, that these patients are frequently best let alone. In my opinion, frequent changes of dressings do more harm than good, and simple measures are often best.

The sterile rubber sponge has been advocated by Nobl of Germany, his idea being that the local compression checks exuberant overgrowth and keeps down the granulations, but generalized compression by the Ace bandage certainly plays a part in the cures described by Dr. Garrett and seen in McPheeters' clinic.

Dr. Rives is undoubtedly right in his statement that the syphilitic ulcer is quite as frequently seen in the lower as in the upper leg. I should have mentioned leprosy as a factor in trophic ulcers, and I thank him for calling my attention to the lack of emphasis on this point.

RECURRENT DISLOCATIONS OF THE SHOULDER.*

E. D. FENNER, M. D.

NEW ORLEANS.

Recurrent dislocations of the shoulder are neither common, nor are they very rare. They may be seen in the practice of any active surgeon, but few men have accumulated a long list of cases. The condition is a distressing one for the patient, impairs his activity, and keeps him in constant anxiety. Inevitably, surgeons all over the world have been aroused to discover a method of preventing re-dislocation, and at the same time to secure a painless and freely movable joint.

The very variety and number of the operative procedures which have been proposed to cure the condition is evidence that an infallible method has not been discovered. Laceration of the capsule is inevitable at the time of the first dislocation. Sometimes a piece of bone is torn off from the edge of the glenoid cavity, or from the upper end of the humerus. A fracture of the neck or head of the humerus may have been associated with the original luxation. Sub-

*Read before the Louisiana State Medical Society, New Orleans, April 14-16, 1931.

sequent dislocation must occur through the torn capsule, and ultimately must result in the persistence of an opening in the capsule, or in a decided pouching and relaxation of that structure. It is, however, pretty well established that the stability of the shoulder joint is only in part due to the capsule; the muscles play a much more important part in supporting the head in its socket. It is also well known that redislocation is produced by muscular action in favoring positions of the limb.

Operations to cure recurrent dislocations of the shoulder may be divided into:

1. Operations on the bony structures. Excision of the head of the humerus was done by Kellogg Speed in a case in which a fracture had caused severe distortion. Hildebrandt, in 1902, gouged out the posterior part of the glenoid cavity to deepen it and render the anterior margin more prominent. Oudard and Lenormant, in 1928, split the coracoid process, and lengthened it to produce a bony block to oppose forward displacement of the head of the humerus. Kellogg Speed, and Eden, bored a hole in the scapula near the anterior inferior margin of the glenoid, and drove in a bone peg taken from the tibia to offer resistance to the escape of the head. This is similar in principle to the well known shelf operation at the hip. The resourceful ingenuity of the originators of these procedures must be acknowledged, but I think it may be safely said that none of these bone operations has met with any general acceptance, and are of greater historical than practical interest.

2. Operations on the capsule have been favored by many surgeons. Simple plication, without opening the joint, has been tried by a number of surgeons. Arthrotomy, with imbrication of the edges of the capsule, or with excision of redundant tissue, has been advised by Henderson, by McAusland, and in particular, by T. Turner Thomas. Most operators enter by the axillary route posterior to the vessels, which are retracted forward. Thomas has been an ardent advo-

cate of the posterior incision. Capsular operations are neither simple nor easy, and are yielding in popularity to the next group.

3. Suspension operations to support the head of the humerus. Spitzzy attempted to tie the humerus up to the scapula by passing a quadruple strand of stout silk around the neck of the humerus, knotting it in front, and carrying the long ends of the silk up to be secured to the coracoid process; in addition, the capsule was plicated about the silk strands. Clairmont attempted to suspend the humerus by passing a strip taken from the posterior edge of the deltoid muscle behind the humeral neck and suturing it to the coracoid. Carrell, in 1927, carried out an even more complicated procedure with the same object in view. He cut the long tendon of the biceps, sutured its distal end to the short head to preserve function, and then sewed a folded strip of fascia lata to the proximal part of the long head of the biceps. This elongated tendon was then brought around behind the humerus, and carried up posteriorly to be secured to a hole drilled in the margin of the acromion. Henderson, in 1930, describes an operation of teno-suspension which he has substituted for the capsular operation formerly advocated by him. A long strip, consisting of half the thickness of the peroneus longus tendon, is taken from the leg. This is passed through holes drilled transversely through the acromion above, and the humeral head below. The drill holes in the bones have canulas thrust through them to facilitate the passage of the tendon strip. After the canulas have been removed, the tendon ends are tightened up, and sutured together posteriorly. Three incisions are needed, a longer one posteriorly extending from the acromion downwards onto the head of the humerus, and two shorter incisions anteriorly to expose the acromion process and the humerus in front. This operation has met with wide acceptance, due in part to the unrivalled literary and publicity organization of the clinic from which it emanates, but that it is sound in

principle, and has given very satisfactory results, must be freely admitted. The latest procedure for the prevention and cure of recurrent dislocations of the shoulder is one described by Nicola.

Nicola exposed the shoulder joint and the bicipital groove by an incision through the deltoid. The muscle is retracted, and the sheath of the long head of the biceps is opened. The incision is carried up through the capsule as far as the edge of the glenoid to render the head of the humerus accessible. The biceps tendon is cut some distance down from the head. The proximal part of the tendon is turned up out of the way, the humerus is adducted and pushed upwards to expose the articular surface, and a large hole is drilled from just below the transverse humeral ligament to the centre of the head. By means of a silk guide the proximal part of the tendon is now pulled through the drill hole from above downwards, and firmly secured to the distal end. The transverse humeral ligament and the bicipital sheath is now sutured over the tendon, the catgut passing through the tendon as well as the edges of the sheath. Finally, the capsule is closed with catgut, the muscle replaced, and the skin sutured.

This operation is comparatively simple and easy; with the exception of the change in position of the biceps tendon the normal anatomy is not disturbed; no secondary incision elsewhere is needed; and the mechanical efficiency of the tendon in its new location as a support to the humeral head is instantly appealing.

Two cases have given me opportunity to employ Nicola's method.

Case 1. Henry Jones, white, aged about 35 years, presented himself with a history of repeated dislocation of the shoulder. On May 28, 1930, I operated upon him by Nicola's method. An incision about $4\frac{1}{2}$ inches long was carried through the skin just to the outer side of the cephalic vein. The interspace between the deltoid and the pectoralis major was opened up, and the bicipital groove identified. The sheath of the long head of the biceps was incised, and the incision carried up through the transverse humeral ligament, and the capsule of the joint as far as the margin of the glenoid cavity. The

tendon of the long head of the biceps was sectioned well down towards the muscle, and lifted out of the way. The arm was now adducted and pushed up so as to expose as much as possible of the head of the humerus. With a Hudson drill a large hole was drilled obliquely from just below the anatomical neck towards the centre of the humeral head. The proximal portion of the biceps tendon was now pulled through the drill hole, and continuity of the tendon restored by silk sutures. The tendon sheath, the transverse humeral ligament, and the joint capsule were now closed with chromic gut, the sutures being passed through the tendon to fix it firmly. The soft parts were now closed, and the arm fixed in a Velpeau bandage.

The patient was under observation for several weeks, after which he returned to his home in the country. When last seen it appeared that shoulder function was going to be entirely satisfactory, but it has been impossible to trace him to find out what has been the final outcome.

Case 2. Alton Bergeron, white, aged 40 years, was seen on July 28, 1930, on account of repeated dislocation of the shoulder.

On July 30, 1930, he was operated upon by Nicola's method. The operative details are an exact repetition of the first case. Healing was by first intention. As he was perfectly comfortable he was discharged from the ward on August 1, 1930, but was kept under observation in the clinic for several weeks. A letter from him in April, 1931, states that he is completely satisfied with the result. He has had no re-dislocation, has no impairment of function, no pain, and considers the arm as good as it ever was.

Nicola's method appears to me the simplest, most satisfactory contribution to the surgery of recurrent dislocations of the shoulder so far presented to us, and I am convinced that as time affords the opportunity many other surgeons will join in the chorus of commendation in which as yet but a few have been in position to join.

DISCUSSION.

Dr. P. A. McIlhenny (New Orleans): The extreme disability produced by recurrent dislocations of the shoulder can be truly appreciated only by the man who comes into contact with such patients. They are absolutely incapacitated by reason of their fear of another dislocation, and they labor under a real mental hazard in their attempts at occupation.

A most interesting point is why these recurrent dislocations occur, and it is one that has never been settled satisfactorily. Some authorities claim that the reason is a development defect in the glenoid fossa or the head of the bone,

others think it is due to muscular contraction, still others that it is due to the taking of certain positions in which undue weight is applied, but nobody really can explain the cases in which actual trauma is absent. Some cases have been reported in which the dislocation occurred only when the arm occupied specific positions.

The principal point of treatment is the prevention of the redislocation. In cases seen immediately after the accident, adequate support should be applied and it should be maintained preferably for too long a time rather than too short a time, for the stability of the joint must be assured. As Dr. Fenner has pointed out, there is a marked laxity in these cases, even if a permanent rent is not established in the capsule. If the part is supported in the position of adduction and inward rotation, with the head of the bone in the fossa for an adequate length of time, contractions may have a chance to take place and the recurrent accident may be prevented. It is surprising, as a matter of fact, in view of the osseous instability of the shoulder joint, that more dislocations do not occur.

As far as treatment is concerned, capsulorrhaphy has been practically relegated to the wastebasket. Nobody uses it any more. Only about 30 or 35 per cent of the patients were permanently cured, and fully 30 or 35 per cent obtained no relief at all. The simplest operation compatible with the desired results should always be used around the joints. The treatment today is limited to the operations described by Dr. Fenner, the Henderson teno-suspension and the Nicola operation. Both are undoubtedly satisfactory in producing stability of the joint together with free motion, and both lessen the possibility of re-dislocation in the absence of severe trauma. The desire of the surgeon and his ability to perform the special operation is really the basis of choice, but the Nicola operation, being simpler, seems the wiser for general use.

Post-operative treatment is most important. If we allow free motion as soon as the wound is healed, we are going to have a recurrence. I believe that physiotherapy should be guardedly applied, and then active motion carefully begun, but I am not in favor of passive motions at all. It is much better for the patient to have a limited abduction with gradual increase than to have free motion and run the risk of recurrence.

Dr. Guy A. Caldwell (Shreveport): Since the operations described by Dr. Fenner have been introduced I have not seen a patient with a recurrent dislocation of the shoulder but I expect to follow this procedure in the future. I think muscular incoordination must be an etiologic factor in this condition for recurrent dislocation of the shoulder is of rather frequent occurrence in

epileptics. Of the cases I have seen, probably 12 to 14 in all, only 4 were willing to submit to operation and all 4 were epileptics. I did the Clairmont operation in each case and observed 3 of the 4 for at least six months. I would not say it is an ideal operation, but it did satisfy the patients. They went through repeated convulsive seizures without a recurrence but they had appreciable limitation of motion. They could abduct barely to the right angle and they had a serious limitation of external rotation. But they did not have pain and they did not have any recurrence of the dislocation.

How the teno-suspension operations described all stand epileptic seizures I do not know but I shall attempt them in the future. For one thing, the Nicola operation is a much simpler operation than the Clairmont operation which is not simple at all.

Prophylactic measures at the time of the reduction of the initial dislocation are most important for the general practitioner to keep in mind. Epileptic seizures, of course, cannot be prevented but immobilization for a sufficient time after the first injury will be of material assistance. In each of the cases I did not operate on I found that no advice had been given at the time of the first reduction as to the need of keeping the arm at the side and avoiding active abduction until the capsule was well healed. The patients had proceeded immediately to make active use of the shoulder and the dislocation had recurred in all after a few weeks or months. At operating, however, I have never been able to demonstrate a rent in the capsule.

Dr. E. D. Fenner (closing): There is no question but that the best cure for recurrent dislocation of the shoulder is not to let it recur, but the fact remains that it does recur, and that it must be treated. I agree that proper protection of the joint at the time of the first injury cannot be too strongly emphasized.

Bone operations and capsulorrhaphy are, I believe, entirely in the discard today, and the objection to capsulorrhaphy is founded in the fact that rents in the capsule cannot be demonstrated, as Dr. Caldwell has pointed out. If there was a tear in any case I have done, I certainly did not see it.

Suspension operations seem to give the best results, and I think the one should be chosen which the surgeon finds simplest to do. I smiled as Dr. Caldwell said he did not think the Clairmont operation was simple. Nobody else has ever found it simple. It requires two incisions, one in front of and one behind the joint, the strip of transplanted muscle must more or less follow the course of the circumflex nerve and artery, and it is very difficult to get a strip of muscle long

enough to reach up to the coracoid. The Henderson operation of teno-suspension by means of a strip of the peroneus longus requires four incisions, three in the shoulder, and one in the leg. The details of boring the acromion and the head of the humerus, passing the strip through the holes, and suturing it there are very complicated. The Nicola operation requires only one incision, the parts are readily accessible, the operation is comparatively easy of performance, and there is no question of a tissue transplant, which always introduces a problem. Only a few cases have been reported as yet, but the men who have done the operation are enthusiastic about it, and certainly it is both logical and productive of good results.

CHAIRMAN'S ADDRESS.*

LUCIEN S. GAUDET, M. D.,

NATCHEZ, MISS.

Before beginning my address, let me first take this opportunity to extend to each and every one of you my sincere appreciation of the kind assistance and support you have given me in the programme of splendid papers that follow.

Since last we met, much current has flowed over the mill race of time. We have gone through one of the worst financial depressions in history, with its resultant hardships on all, more especially our profession, who as usual has suffered serious financial losses and reduced earnings, but hope the end is in sight, and that we may never be called upon to face the trials and tribulations of another. This is quite a serious problem to us, when we consider that the medical profession donates from 365 to 375 million dollars in this country to free services yearly.

Other problems of vital importance face us. The agitation of the cost of medical care still goes on, with big business and the laity considering the cost of medical care and hospitalization as excessive. It is interesting to know that only 2.5 per cent of our national income is spent for this phase of it. A very small part for pay-

ment of health. We spend three times as much for tobacco, twice as much for candy and so on down the line. A continuance of this agitation without some plan properly worked out between the physicians and the public is but one of the stepping stones to state medicine as I see it. This problem is for you and me to think about.

While attending a joint meeting in Vicksburg in December, Dr. Felix Underwood made a statement that should make a profound impression on us, as it is relative to our own health and well being. As I remember, he said that out of 51 physicians called by death in this state in the past year, over 50 per cent died of some form of heart disease and 40 per cent of these cases were under fifty years of age. If this be so, and Dr. Underwood knows, then we are not giving ourselves the proper protection for our health and being, that we advise and expect our patients to do.

Another problem that should deserve our prompt and undivided attention is that each section of the Mississippi State Medical Association should have the right and privilege of selecting its own chairman each year, and this should not be the prerogative of the president as is now in existence. I have no desire to detract from the president, his privileges and honors, but we all must feel that each section can better judge and pick its chairman and it sounds so reasonable and logical anyway. This is the plan followed in the American Medical and Southern Associations.

There has been mentioned to me by one of our members that it may be wise to consider the organization of an Ophthalmological and Otolaryngological Society in Mississippi, and I think some of you should bring up this matter for discussion at this meeting. If this could be worked out, I think it would help to improve this section a great deal in the future.

I feel that it would be amiss to close my address without some mention of the more scientific side of medicine, therefore, I make mention of etiology and pathology as

*Presented before the Section on Eye, Ear, Nose and Throat, at the Sixty-fourth Annual Session of the Mississippi State Medical Association, Jackson, May 13, 1931.

relating to our special work, because these subjects have been woefully neglected in the past, and I hope will be somewhat of a stimulus to you to consider these subjects more seriously in connection with your daily work.

Etiology, is you well know, is the study of the causes or causative factors of disease.

Pathology is the study of the functional and structural changes caused by disease.

Pathology is divided into two great groups: Clinical, and medical and surgical.

We have other divisions of pathology as cellular, comparative, functional, experimental, microscopical, special and others. We of this section are especially interested, as we should be, in the clinical, gross and microscopic pathology in its relation to such tissues as tonsil; turbinate; conjunctival, retinal, and choroidic membranes, lining of the sinus cavities and other tissues that are brought daily in our range of vision.

More and better understanding of these subjects will only tend to assist us in arriving at a correct diagnosis in many cases of indecision and perplexity, and thereby broaden our field in doing better work, and with more resultant benefits to humanity coming under our care.

Most of us, after a considerable length of time has elapsed in our work of making diagnosis and prescribing treatment, feel the need of expansion of our knowledge and ability, as we desire to learn more, and for that reason I am dwelling some on these subjects, as they provide us with unlimited opportunity for further studies and more exact knowledge in a somewhat neglected field.

I hope time will bring us such a knowledge.

HEART DISEASE AND THE DIABETIC.*

I. I. LEMANN, M. D.†

NEW ORLEANS.

The association of diabetes and arterio-sclerosis has been a matter of note for a long time. The frequency of gangrene of the extremities in diabetics is notorious. The relation, however, of diabetes and heart disease dependent upon arterio-sclerosis, while well known to writers of a quarter of a century ago, did not engage their attention as it has that of the clinicians during the past half dozen years. Indeed, the attitude of the profession toward this problem has entirely shifted. Van Noorden,¹ writing in 1895, said: "Almost all writers agree that diabetics suffer premature arteriosclerosis and are, therefore, liable to all the troubles such as cardiac asthma, and exposed to all the dangers, such as apoplexy, degeneration of the heart muscles, peripheral gangrene, necrotic inflammation, etc., which this condition calls forth. * * * It is a question that calls for careful study in the future whether arteriosclerosis, possibly of syphilitic origin, may not often be the primary disease which is followed later by diabetes resulting from the nutritive disturbances so occasioned in the pancreas or nervous system." He remarked that there were many patients in whom not the slightest cardiac lesion had occurred in one of two directions, namely, hypertrophy and cardiac weakness. The former was attributed to the concomitant nephritis, while the cardiac weakness was attributed to a simple atrophy of the heart muscle as shown in the post-mortem studies of Frerichs. Similarly, Naunyn² in the 1898 edition of his work on diabetics commented upon the great role played by arteriosclerosis in diabetes and remarked that it was not

Heart Murmurs.—A systolic murmur may or may not mean valvular heart disease; a diastolic murmur almost invariably indicates an organic lesion of a valve.—Anon.

*Read before the Louisiana State Medical Society, New Orleans, April 14-16, 1931.

†Chief of Medical Service, Touro Infirmary; Professor of Clinical Medicine, Tulane University School of Medicine.

usually to be regarded as the result of diabetes, but on the contrary, as a cause. It was found only rarely in young individuals dying of severe diabetes, while comparatively frequently in old gouty and mild diabetics, in whom the diabetes was influenced by the accompanying arteriosclerosis. He attributed little value to the influence of the glycosuria upon cardiac asthma and angina pectoris, for these occurred usually in milder cases of diabetes. While he could not deny that cardiac asthma occurred after a long previous existence of diabetes, he pointed out that the reverse is sometimes the case, namely, that asthma or angina appears before the diabetes. He, too, attributed the frequent hypertrophy of the heart to the accompanying nephritis. Joslin,³ in the first edition of his work in 1916, said: "Arteriosclerosis is of common occurrence in protracted cases of diabetes. It is of the senile type. It seldom occurs even in the severest cases of diabetes in youth or old age, a strong argument against diabetes being a causative factor in arteriosclerosis." "Arteriosclerosis, on the other hand, may play an important role in the production of diabetes." "The cardiac symptoms are more of the order of angina pectoris than of cardiac incompetency." Even in his third edition, published in 1923, he makes the same statements.

The last few years, however, have brought an accumulation of much evidence indicating that diabetes stands in direct causative relationship to arteriosclerosis, and hence to arteriosclerotic heart disease. This new evidence has been made possible by a number of factors. There has been, in the first place, at least in this country, a sudden increase in the frequency of autopsies upon diabetics. Secondly, there have been routine skiagraphic studies,⁴ of the extremities of diabetic patients, which have shown the great frequency and extent of arteriosclerosis unrecognized clinically in these patients. To this must be added also the growing realization that the coronary

arteries share in the various degenerative processes of the peripheral arteries, such as arterio-sclerosis, Buerger's disease,⁵ etc. Of prime importance has been the recognition *intra vitam* of coronary occlusion, an epoch-making contribution of J. B. Herrick⁶ and his associates. In recent times have come, too, the electrocardiographic studies⁷ of diabetic patients. It must be realized that it is only in the last dozen years that blood chemistry studies have become routine, and they have served to bring to light milder forms of diabetes without glycosuria; indeed, in some of these cases the grade of glycemia has been extremely high. Above all is the role played by insulin in changing many of our former conceptions of diabetes. No longer do the majority of diabetics die of coma, asthma, or tuberculosis. Heart disease now has risen to the first place as the cause of death of diabetics. Death from diabetic coma may now be regarded practically as an avoidable accident. Diabetic patients, even the children and young adults who formerly died within a year or two of the recognition of the disease, now live long enough to permit the diabetes to produce arteriosclerosis. Shepardson⁴ has shown how frequently the latter is in individuals so young that there could be no doubt of their having entered prematurely the zone of the usual senile arteriosclerosis. Joslin's⁸ latest statistics show a drop in the mortality due to coma from 61 per cent in the Naunyn era to 11 per cent in the last 781 cases who had died in the previous 4 years. Correspondingly, the average age of the diabetic at death had risen 1 year each for the last 16 years so that it was 60 years in contrast to 44 years previously. Very striking is the fact that when Joslin's fatal cases were studied with regard to the locality of the arteriosclerosis, the heart was found to be the most frequent site (19.1 per cent) of the total mortality; the legs were the next (13.2 per cent), as evidenced by gangrene; far less the brain (7.2 per cent); and least of all, the kidneys (4.7 per cent). Joslin

found: "If the duration of diabetes is less than 5 years, arteriosclerosis leads to 30 per cent of the deaths, if it is from 5 to 9 years, 44 per cent of the deaths, if 10 to 14 years, 53 per cent, if 15 to 19 years, 60 per cent, and 30 years or over, 68 per cent." He, too, stresses the fact that even children have arteriosclerosis as shown by calcification of the arteries in the legs, demonstrated by the roentgenogram. He reports a young diabetic woman in her early twenties who died of angina, and 2 other patients, 33 and 30 years of age, respectively, who died of angina and coronary thrombosis, the lesions being demonstrated by post-mortems.

The statistics based upon autopsies are most impressive. Actual thrombosis with infarction of the heart has been present in 25 per cent of 100 autopsies of diabetic subjects at the New England Deaconess Hospital. Warren,⁹ in 282 autopsies on diabetics, found 35 cases of infarction (12.4 per cent), and he quotes Nathanson, who found extensive coronary disease in 52 per cent of the diabetics above 50 years of age, as against 8 per cent in general autopsy material. Warren also contrasts his findings with Ophul's report of 3000 autopsies in which only 26 cases of infarction were found, and also with Benson's series of 1750 autopsies (coroner's cases and containing many cases of sudden death) with 72 cases of infarction (4.1 per cent).

Root and Graybiel,¹⁰ in their recent report from the Joslin clinic of 210 cases of angina in 7000 cases of diabetes mellitus, pointed out that this incidence, so markedly exceeding the incidence of angina in a general hospital population, was an indication of the specific influence of diabetes. A further indication was afforded by the sex ratio. In the 210 cases, 122 were males and 88 females, in contrast to the usually much greater proportion of males. "Such a leveling influence on the sex incidence would be expected since the incidence of diabetes is nearly the same in the two sexes."

In a series of 588 diabetic patients above the age of 21, I have observed 44 patients with evidences of heart disease. These 44 patients I have classified as follows:

TABLE I.

1. Patients with angina or coronary occlusion..	15
2. Patients dying suddenly a cardiac death but without pain	1
3. Patients with arrhythmias without congestive heart failure	9
In this group are included 4 patients with ventricular ectopic beats, 2 patients with auricular fibrillation, and 1 patient with heart block.	
4. Congestive heart failure with valvular disease	9
One of these had auricular fibrillation, one ventricular ectopic beats.	
5. Congestive heart failure without valvular disease	10
Two with ectopic ventricular beats, one with auricular fibrillation, and two with bundle branch block.	
6. Patients with heart murmurs, without arrhythmia and without evidence of congestive heart failure	2

My records include 52 patients (diabetic and non-diabetic) with angina or coronary disease. It will be noted that 15 of these 52 had glycosuria at some time not in connection with their seizures. Thirteen of them were definitely diabetic. The other two were Jews with transient glycosurias and with the history of definite diabetes in the family. Both of these patients were obese. One of the 2 has a definite syphilitic history. He had, several years ago, and following some minor anginal attacks, a very severe coronary occlusion characterized by status anginosus, pericardial rub, crepitant rales, slight elevation of temperature, leukocytosis, and typical electrocardiogram. Subsequent to this, he has suffered from congestive heart failure. Another of the 15 had similar definite evidence of coronary thrombosis. One other patient, after a number of years of frequent attacks of angina, died, aged 46 years, in a status anginosus lasting several days, and I have no doubt that we were dealing here also with a coronary occlusion. Table 2 shows the age at which each of these patients de-

veloped diabetes, angina, and the age at death.

TABLE No. 2

Patient No.	Diabetes discovered at age of	Angina or coronary occlusion at age	Age at death
3321	46	51	51
104	48	71	73
3824	39	51	Living?
2710	49	57	57
2434	50	55	60
2698	50	55	Living
1546	67	77	80
3917	50	58	58
2854	60	60	60
3045	50	50	Living
1510	33	43	46
145	46	64	64
3872	50	53	60
3090	66	70	71
1788	44	52	Living

In group 3 there are 3 patients to whom attention is to be directed because there is very definite evidence of myocardial disease. Patient number 3023, whose diabetes was discovered at the age of 63, had both legs amputated within a few months in his 74th year. He subsequently, at the age of 77 years, developed a partial heart block which persisted to his death at 78 years. A very interesting observation was that while he required 18 units of insulin with a diet of C 100, P 40, F 150, at the time of his amputations, he required no insulin at all and had a normal blood sugar value during the last 6 months of his life. Patient number 3062, aged 69 years, whose diabetes was discovered at the age of 60 years, and patient number 1414, aged 50 years, whose diabetes was discovered at 44 years, had auricular fibrillation causing them relatively little trouble.

The patients with congestive heart failure are of particular interest because of the suggestion, notably in the German literature, that insulin is dangerous in such cases. Middleton and Oatway¹¹ refer to the experience recorded in the literature. Gigon's patient with cardiac decompensation had died after 3 doses of insulin. Rhinewein's 2 similar patients had improved after the withdrawal of insulin. Nicely and Edmond-

son had 2 patients in whom decompensation attended the administration of insulin. The diabetic heart utilizes sugar, which is the chief source of food and energy, less well than the non-diabetic heart. It is only after the addition of insulin that the diabetic heart is enabled to utilize sugar normally. These statements are based upon definite laboratory demonstrations of perfusion of isolated hearts. If insulin is given to the point where the blood sugar is lowered below the normal, the diabetic heart is still further handicapped because of the lack of available sugar. It may then, because of this handicap and the further handicap of inadequate coronary circulation, suffer in its efficiency and decompensation might result. Such is the theory upon which objections to insulin therapy in serious heart disease and particularly in the presence of decompensation are based. My own experience runs entirely counter to this statement. In general, those patients in whom it was possible to carry out the proper regimen for the cardiac disease were helped by insulin. In no case where insulin was administered was there any symptom or lack of improvement that could be attributed to the insulin. Patient number 2374, with auricular fibrillation and congestive heart failure, whose diabetes had not previously been recognized, went into diabetic coma. She was rescued by insulin. A day or two after she was rescued she went into insulin coma from which she was promptly brought back by the immediate injection of glucose into a vein. There was no unfavorable action upon the circulation caused by this very definite hypoglycemia.

Granted the etiological relationship of diabetes to arteriosclerosis and to arteriosclerotic heart disease due to coronary affection and subsequent fibrous myocarditis, we may inquire as to the pathogenesis. Evidently the arteriosclerosis is not related to the severity of the disease nor to the grade of the glycemia. Attention had already been called to this by Naunyn, van Noorden, and Joslin. None of my 15

diabetics with angina and coronary disease was a severe diabetic. Patient number 104, whose glycosuria I discovered in 1906, when he was 48 years old, died in December, 1930, when he was 72 years. I was able to follow him throughout the 24 years. For the most part, his glycosuria and glycemia were controlled by very moderate restrictions of his diet. For the last 5 years of his life he had taken small doses of insulin, 6 to 10 units once a day. His blood pressure had never been elevated, usually about 120/60. His blood sugar in April, 1930, was 105. He had had fleeting, stab-like pains in the precordium and the left forearm, never lasting more than a few minutes, in the spring of 1929. He complained no more of this until he died in his first severe anginal attack. Patient number 3023 came to have a normal blood sugar without insulin after he had lost both of his legs and had developed double cataracts and heart block. The fire was out as far as the metabolic need for insulin was concerned, but in its previous raging it has done widespread damage. If arteriosclerosis is produced by diabetes, this production is to be correlated with the duration of the diabetes rather than with severity. The figures of Joslin and Root are quite impressive upon this point. A number of writers have referred the arteriosclerosis to the effect of the high blood fat. Aschoff,¹² in developing an earlier idea of Virchow, has become strongly convinced of the validity of the imbibition theory of arteriosclerosis. The high blood fat, taken up by imbibition, injures the intima of the vessels. He believes that this process is not only avoidable but reversible. According to this theory, therefore, we should be as much interested in the high blood fats as in the high blood sugars of the diabetic. Indeed, some believe that we can more nearly check the faithfulness of diabetic patients to their diet by blood fat estimations than by blood sugar estimations. The general trend of the times is toward low fat diets rather than toward high fat diets.

There is, too, the implication as to the prognosis of the diabetic. If, by diet and insulin, we can keep hypercholesteremia in control, we may have high hopes of preventing arteriosclerosis. We have not, however, at present, evidence to show that inadequately treated patients are more prone to arteriosclerosis than are those adequately treated. We shall probably know more of this in the future when blood fat estimations are more common. Also, we must remember that inadequately treated patients may not live long enough to become arteriosclerotic.

Finally, a word may be said as to the great desirability of a liberal carbohydrate diet, in old diabetic patients at any rate. The diabetic heart not only utilizes blood sugar poorly, but seems to require the presence of an excess. Some sudden deaths, apparently from heart failure associated with hypoglycemia, have been reported.

SUMMARY.

Whereas formerly it was debated whether arteriosclerosis produced diabetes or diabetes the arteriosclerosis, the accumulating evidence of recent years would seem to indicate that arteriosclerosis is the result of diabetes. There is reason to believe that it is caused by the high blood fat. Hence, when this latter is controlled by proper diet and insulin, there is hope of avoiding arteriosclerosis and arteriosclerotic heart disease.

The coronary arteries share in the degenerative processes of the peripheral vessels. Therefore, angina, coronary occlusion, and fibrous myocarditis are found frequently in diabetics as in other arteriosclerotics.

Cautious is to be used in arranging diets and insulin for older and arteriosclerotic patients. Abundant carbohydrate must be provided and hypoglycemia avoided.

REFERENCES:

1. Van Noorden, C.: *Diabetes mellitus in twentieth century practice*, Wm. Wood & Co., New York: 2:109, 1895.
2. Naunyn, B.: *Diabetes mellitus*, Wien, 1898.
3. Joslin, E. P.: *Treatment of diabetes mellitus*, First edition. Lea & Febiger, Philadelphia: 1916, p. 315.

4. Bowen, B. D., and Koenig, E. C.: Arteriosclerosis and diabetes, including a roentgenological study of the extremities, *Bull. Buffalo Gen. Hosp.*, 5:31, 1927.
- Shepardson, H. Clare: Arteriosclerosis in the young diabetic patient, *Arch. Int. Med.*, 5:45, 1930.
5. Lemann, I. I.: Coronary occlusion in buerger's disease (thromboangiitis obliterans), *Am. Jour. Med. Sc.*, 176:807, 1928.
- Perla D.: An analysis of forty-one cases of thromboangiitis obliterans, *Surg. Gynec. and Obst.*, 41:21, 1925.
6. Herrick, J. E.: Clinical features of sudden obstruction of the coronary arteries, *Jour. Am. Med. Assn.*, 59:2015, 1912.
7. Blitzsten, E. P. W., and Schram, D. L.: Diabetes: electro-cardiographic studies, *Arch. Int. Med.*, 36:770, 1925.
8. Joslin, E. P.: Arteriosclerosis in diabetes, *Ann. Int. Med.*, 4:54, 1930.
9. Warren, Shieles: Pathology of diabetes mellitus, Lea & Febiger, Philadelphia, 1930, p. 142.
10. Root, H. F. and Graybiel, Ashton: Angina pectoris and diabetes mellitus, *Jour. Am. Med. Assn.*, 96:925, 1931.
11. Middleton, William S., and Oatway, William H., Jr.: Insulin shock and the myocardium, *Am. Jour. Med. Sc.*, 171:39, 1931.
12. Aschoff, L.: Lectures on Pathology, Paul Hoeber, New York: 1924.

DISCUSSION.

Dr. George Herrmann (New Orleans): Dr. Lemann has again brought to us some very important clinical pathological observations. He has emphasized the necessity of the study of the patient as a whole rather than one specific disturbance for which the patient might present himself.

He has brought to us again the fact that patients with various types of diseases are being saved from acute chemical destruction only to fall victims of heart disease. There may be a bit of morbid gratification to those especially interested in cardiovascular disease in such data, but there is something more than that to intrigue us. There may be, in these disturbances which Dr. Lemann described, some clue in the mechanism of the degenerative diseases from which so many of our patients now go to their end.

Dr. Lemann has pointed out the chemical relationship of the metabolic disturbances in the diabetic to the arteriosclerosis. He has accepted the lipemic theory of Aschoff as the best explanation of vascular degeneration in the diabetic. There is certainly a good deal in favor of this theory in that the vessel walls, when examined carefully, show masses of atheromatous plaques that are loaded with cholesterin. It seems quite logical that cholesterin must play a part in the arterial sclerosis resulting from prolonged diabetes. There are some who feel that the increase in sugar is the factor indirectly, in causing the disturbances of fat metabolism.

The younger diabetics that have arteriosclerotic changes make up the group that is most significant, I think. In these there is pretty good evidence that the diabetes is definitely responsible for the vascular changes. Furthermore, the vascular changes are similar to those of senility except that they have progressed much more rapidly. The patients show in the atheromatous plaques a great deal of calcium deposition and often calcified rings. The arteries in the periphery, when thus affected, show the goose trachea corrugation. Such changes suggest that the calcium may play a part also in the arteriosclerotic change of diabetes.

Protein has not been very definitely incriminated except by those who report that they have produced arteriosclerotic changes with proteins. We know that there are oxidative changes in diabetics. Dr. Lemann has mentioned such relation to insulin which contribute to changes in the organs that demand perhaps the greatest oxygen supply. Joslin's figures have been quoted showing the heart most commonly involved, which merely emphasizes the fact that perhaps the oxidative demands and changes have perhaps a great deal to do with degenerative sclerosis.

Those who have argued for the use of high fat diet in diabetes insist that the lipemia disappears when the high fat diet is given, just as it does when any other measure that controls the diabetes. That has not been corroborated, but it has been shown that the lipemia is commonly present in starvation as well as in diabetes. Another argument is that the appearance of lipemia is merely a secondary factor showing that there is no available burning material in the blood stream to be used, thus further emphasizing the disturbed oxidative processes which are present in the circulatory system as well as in the organism as a whole.

The older group of diabetics that Dr. Lemann has mentioned are interesting in that they are mild diabetics, and the figures he has quoted, tend to show that the longer the diabetes has been present the more severe the arteriosclerotic changes. The ages however, bring these patients into the group in which arteriosclerosis is important. They have been saved from coma to be carried on to the sixties and seventies where the arteriosclerotic processes take place. Is the degree of arterial change greater in these because of the disturbances in sugar metabolism, than it is in the general run of the aged?

We have hypertensive cases with or without arteriosclerosis, without renal changes, that show poor tolerance for carbohydrates. Are those patients mild diabetics?

When Mills of Cincinnati was here visiting our wards, we showed him several of that type of patient with hypertension as well as sclerotic

changes and glycosuria. He insisted that the picture was one of disturbance of adrenal secretion and not diabetes mellitus. Most of such patients had a mild intolerance for sugar. Would they go on and have more rapidly advancing sclerotic changes than the ordinary essential hypertensive case does?

Dr. Lemann has emphasized the treatment of the diabetic with a diet that is not rich in fat but one that has considerable carbohydrate present. He has not said that the diet should be restricted in protein content. The high carbohydrate intake is to be made available because of the necessity for glucose in the adequate functioning of the aging heart as well as the youthful heart.

He has not gone into detail concerning the treatment of the cardiovascular disturbances. In most of the patients I am sure treatment is directed primarily toward the alleviation of their cardiovascular disease, occasionally, however, the reduction of blood sugar relieves cardiac pain. The diabetes mellitus in general plays a relatively minor role as the age progresses, and usually patients can be relieved of their cardiac pain when it appears by the same measures that we use in patients who do not present evidence of diabetes, that is, the vaso-dilators that are so commonly used at the present time.

One point I wanted to restate is the fact that these mild chronic diabetic patients are prone to cardiovascular changes must not be lost sight of. That is, even though they do not present outstanding evidence of cardiovascular disease they should be considered potential cardiac patients. Occasionally the examination will reveal a little suggestive evidence on which we can say definitely the patient does have cardiovascular damage. We should however, even in the absence of evidence, consider them potential coronary occlusion patients. The electro-cardiographic study may show changes at a time preceding their appearance in the clinical examination and therefore such a study is indicated. We are indeed deeply indebted to Dr. Lemann for presenting this important study and thesis to us in his usual clear forceful, scientific way.

Dr. A. A. Herold (Shreveport): There are a few things that Dr. Lemann brought out which are of considerable interest, and one of the things is the arteriosclerotic changes which are shown in these heart conditions in diabetics usually come before advanced age. Heretofore we have been accustomed to treat these older diabetics, when not very severe, without the use of insulin but by dieting. Now, with the knowledge that the high fat diet causes arteriosclerosis, especially with Joslin's suggestion of cholesterol in the blood, due to overfeeding of egg yolks perhaps,

we are afraid to depend entirely on diet and have to resort to insulin.

As an instance of that, I have a patient I have had under observation for about twelve years with diabetes and a heart condition, and he has arteriosclerosis of his extremities, as they so frequently have. Every time he gets an attack, I have been in the habit of putting him to bed, restricting his diet and giving him insulin for a short time. His blood sugar goes back to normal and he get along nicely for several months, or perhaps a year, on a diet. Now, since we fear too high fat diet and give more carbohydrates, it doesn't seem to be practical. I had occasion to see him a couple of months ago with a renal colic. I found his blood sugar quite elevated, although he didn't know it. He has been on insulin ever since. I have been afraid to take him off. He is sixty-five years of age.

Professor Bloor, quoted by Joslin so often, has been trying to bring this point of blood fats to the front in treating diabetes for a number of years. I think we are just beginning to realize it. I want to emphasize its importance, as suggested by Dr. Lemann.

Dr. A. C. Eustis (New Orleans): It might be well, however, to mention, in connection with diabetes, that patients recovering from diabetic coma may have degeneration of the cardiac muscle, often go to fatty degeneration. We know there is severe toxemia in diabetic coma, and its effect on the heart must be considered.

This was very well brought to my attention many years ago, before the advent of insulin. We managed to pull a young high school athlete through a diabetic coma. He was doing well three days afterwards. He thought the room was too warm at Touro, so without ringing the bell for the nurse, he jumped out of bed and attempted to open the window. It was rather difficult for him. He fell over in marked dyspnea and died in about an hour from acute dilatation of the heart.

We can learn from that, that in cases recovering from coma it is well to caution your patient not to overtax his heart.

Dr. A. E. Fossier (New Orleans): There is one little point I want to bring out and that is wherever you find a case that might have a large percentage of sugar in the urine, and even thoracic pains, pains anginal in character, do not make a diagnosis of coronary trouble due to the diabetes unless you have taken the time to make a correct diagnosis. I have seen these cases, although they are not frequent. There is one I have in mind particularly.

About two years ago I saw a man who had a large amount of sugar in his urine, and a high

blood sugar. That individual was a sugar drunkard. I have used that expression very frequently for people who have a liking or a tendency for sugar, like another man has for alcohol. A man cannot pass a confectionary shop without stopping to buy a confection. That individual developed pains in his chest as typically anginal as you would want to see, with a fever and a feeling of terrific pain, and also a feeling of compression sometimes in one side. This is not typically anginal. He thought himself that he had angina. Afterwards he had the pains in various portions of the body, in the calves of his legs, and so forth.

On examination of this individual, a man in his fifties, I didn't find anything wrong. Repeated electrocardiographic examinations showed him to be normal. We kept him under observation for a few days before reducing the sugar. I have seen this man in his attacks. The intercostal muscles would become cramped. You could feel the muscles cramped like other muscles of the body. Here was a cramped condition due to the sugar. Upon reduction of the carbohydrates and sugar in the diet of that individual, his sugar disappeared over night and he never had a recurrence of that pain.

Here was an individual that I thought was absolutely a case of angina, and of course with a background of diabetes you would say that would be a confirmation of that diagnosis, but it was a cramp of the intercostal muscles that simulated that. I am only giving you this thought because you may come in contact with similar cases. They are not frequent, but I have had them. They have been a help to me especially where the electrocardiograph showed them to be normal.

It is a strange thing, I am not saying this in any way to deter from the use of insulin, or for it, that the mortality of diabetes has increased in the past ten years. The statistics of New York City for the last thirty or forty years will show that it has increased a great deal in the past ten years. The thought comes whether the incidence of the disease has increased or whether the mortality has increased. These death rates were taken from New York City. The claim is made that it has decreased all over the country except for New York.

Is it a better diagnosis? I don't know. Is it better than it was the previous ten years for the diagnoses most frequently made? I cannot say. I do know that the statistics show the death rate has increased. I wonder whether the increased sugar consumption which we have had since the time of prohibition, while it has not reduced the alcoholic consumption, at the same time the people are taking more sweet drinks continually, and a large amount of coffee with three or four

spoonfuls of sugar five or six times a day, is not an etiologic factor in the increasing diabetes we have. I don't know; it is not determined, but it is a study for someone to take up.

Dr. I. I. Robbins (New Orleans): There is very little I can add, but from my small, limited experience and the few cases of heart disease that have complicated diabetes, I think the point should be re-emphasized that all cases of cardiac disease, and I have particular reference to those that deal with angina pectoris and coronary thrombosis, must be treated for their cardiac condition.

I have had several cases under observation, and they have been seen by other men in town, whose diabetes was controlled quite well. Vascular remedies to increase the coronary dilatation were employed. Only at such times was the patient able to be given any sort of relief.

I think we must not forget the fact that whether the diabetes causes the arteriosclerosis or not, once the arteriosclerosis has been brought about and the patient does develop angina pectoris or coronary disease, that must be treated in the same way as the angina pectoris of non-diabetics.

I would also like to ask Dr. Lemann if he has any figures on cases of arteriosclerosis non-diabetic in origin, as regards the blood sugar values and the fat values.

Dr. I. I. Lemann (closing): Most emphatically, of course, diabetics who have developed heart disease should be treated for their heart disease, whether that be coronary disease or congestive heart failure. I would like to emphasize the fact that insulin is not dangerous in the diabetic who has developed heart disease. I would also like to call your attention to the fact that in the treatment of angina it has been proposed to use glucose intravenously, which merely emphasizes the point I made in the paper that the heart, handicapped by arteriosclerotic coronary disease, needs an excess of glucose and should not be still further handicapped by pushing the insulin to the point of hypoglycemia. I would like to answer, too, the point just made by Dr. Robbins, namely, as to the possible disturbance from a metabolic standpoint of the patients with non-diabetic arteriosclerosis. I think the message that has been brought to us by these men who are interested in the study of arteriosclerotic heart disease of diabetics is an encouraging message with regard to non-diabetics, because if we are on the right track about the production of atheroma in diabetics by high blood fats perhaps we may be on the right track also in the study of arteriosclerosis produced in patients who are not definitely diabetic. One of the speakers (I think it was Dr. Hermann) referred to patients with hypertension, about whom there was some question as to wheth-

er they were definitely diabetic. It may be that those are potential diabetics. It may be that there is a background of metabolic disorder which in one patient takes the direction of hypertension and in another one the direction of a definite diabetes. Certainly obesity gives us another hint. Obese patients are much more likely to be arteriosclerotic than the thin ones, I mean prematurely arteriosclerotic, and are much more likely to suffer from arteriosclerotic heart disease, from angina and the like. It is a hopeful aspect, then, to which I wish to direct your attention, of the degenerative processes of the cardiovascular system. I have no figures, such as Dr. Robbins asks for, with regard to the blood chemistry of arteriosclerotics. I quite agree with him that this is a rich field for investigation.

SOME OBSERVATIONS WITH DICHLOROBENZINE TERPENOLIC COMPOUND VAPOR IN HEMOPTYSIS.*

EMILE A. BERTUCCI, M. D.,

NEW ORLEANS.

The inhalation method for the treatment of diseases of the respiratory tract had been instituted by rhinologists and laryngologists long ago where a direct application of medicinal agents may exert their influence wherever indicated. Such remedies as the compound tincture of benzoin in the treatment of acute laryngitis and spasmodic croup has been widely known and used by the profession for years and by the specialists as an old reliable remedy and inhalant in these conditions. Creosote and alcohol inhalations in bronchiectasis had its advocates until recently replaced with intra-tracheal injections of lipiodol. Even up to a few years ago the inhalation of chlorine gas for the acute respiratory infections had stirred the nation, but had its disadvantages in the danger of overdose and subsequent irritation of the respiratory passages and finally is now practically obsolete. However, the compound tincture of benzoin and menthol and vapor inhalations still hold a place for the relief of laryngeal and bronchial in-

flamations of the catarrhal type even up to the present day.

No therapeutic agent has ever been offered via the respiratory route as a preventative for recurrent pulmonary hemorrhages of the tuberculous type. It was during some research in pulmonary tuberculosis with dichlorobenzine compound that I happened to observe a series of hemorrhagic cases under such treatment that brought a new field of investigation in this particular type of case and which attracted my attention very eagerly. However, before entering upon the purpose of this paper, I will briefly summarize the causes of hemoptysis in general.

(1) Hemoptysis of the pure tuberculous type, from tuberculous lesions within the lung.

(2) Certain diseases of the lung, pneumonia (initial stage), cancer, gangrene, abscess, and bronchiectasis.

(3) Heart affections, particularly mitral lesions.

(4) Ulcerative affections of the larynx, trachea, or bronchi.

(5) Aneurism.

(6) Vicarious hemorrhage (rare).

(7) Recurrent hemoptysis in arthritic subjects.

(8) Malignant fevers and purpura hemorrhagica.

(9) Endemic hemoptysis due to a parasite, the distoma pulmonale, or bronchial flux, an affection confined to parts of China and Japan.

(10) Diaphragmatic hernia (rare but possible).

Considering these causes we should never lose sight of the fact that about 86 per cent of all cases of hemoptysis are tuberculous and occur in from 60 to 80 per cent of all cases of pulmonary tuberculosis, more frequently in males.

The primary cause of a tuberculous hemoptysis, as we all know, is a bacteriological one, viz: the invasion of the tubercle bacillus, which causes a hyperemia of the lung tissue. Again, a perforated

*Read before the Louisiana State Medical Society, New Orleans, April 14-16, 1931.

blood vessel at the seat of the tuberculous focus may cause a severe hemorrhage. Alteration in blood coagulability due to a deficiency of fibrinogen in the blood plasma, improper dissolution of the formed elements, which in turn produces a delayed action of thrombin upon the fibrinogen by virtue of an improper chemical affinity of the nucleoproteins and the calcium salts in the blood, and lastly a deficiency of calcium salts in the blood itself. All these factors predispose the tuberculous patient to hemorrhage. The indications in the treatment therefore primarily lies in restoring the blood chemistry to normal, the relief of the anxiety of the patient, and a psychological stability that will lessen nervous apprehension. This will encourage the patient on the road to recovery, by keeping this apprehension at its lowest ebb so that the element of hope may gain a foothold which is so very necessary in every tuberculous case. This element of hope becomes shattered when any bleeding from the lungs occurs during the progress of any treatment. The patient despairs from the first and certainly needs to be strongly reassured. Death is rarely due to pulmonary hemorrhage *per se* except in a few cases where a large blood vessel has been eroded.

The problem of respiratory medication in the treatment of pulmonary tuberculosis whereby an agent could be found that was harmless to the delicate network in the lung, was adapted in the form of a vapor that would penetrate far beyond the finest bronchioles and even reach the alveolar cell.

Dichlorobenzine, on account of its remarkable penetrating effect and at the same time antiseptic character, formed the basis of the formula. I then sought to place with it, volatile substances that would be carried directly with it, so here I added the oil *pinus pumilio* which was emulsified with the basis principal, viz: Ortho and para dichlorobenzine. This basic principal is a dichlor derivative of

the hydrocarbon benzene series found in coal tar having the formula $C_6H_4Cl_2$. Other constituents of the oil are pinene, bornyl acetate, phellandrene, cadinene, limonene, and dipentene. Specific gravity of this oil should be .935 and does not contain any methyl alcohol, but consists largely of terpenes. It is non-toxic and non-irritating in any of the dilutions and even in very concentrated form has no local effect on mucous membranes, as experiments on normal rabbits and dogs revealed. Having obtained this information on animals in various dilutions of the formula, I then began to use it on humans.

Twenty-five cases with positive pulmonary tuberculosis and positive sputum, five of which were recurrent hemorrhagic types with bleeding on an average of every two to three months were treated with success. The remaining twenty cases which had blood-tinged sputum in greater or lesser amounts ceased to expectorate blood after its use. A series of ten controls were employed in the experiment.

Its action was due to hemostatic effect as determined on the ear veins of rabbits. In this experiment, hemorrhage ceased naturally in 12 minutes, and after the vapors were applied reduced the time from 12 to 4 minutes in controls. The terpene content was in turn responsible for its hemostatic effects as again determined by experiments with various agents containing no terpenes.

Vaporization can either be effected as a dry or a moist form. The dry form of vaporization was effected by means of simply steaming the pure formula in a vessel regulated by heat and the volatilization taken up by the patient by direct inhalation of the dry vapor. The moist form which was used consisted in passing steam through the preparation and allowed to carry off with it those volatile agents that were volatilized at this temperature. A special vaporizer consisting of two containers, an upper and a lower in which the upper contains the chemical and the lower,

water. The amount of chemical, however, should not exceed one-third the capacity of this container. A small pipe one-eighth inch in diameter forming a horseshoe curve coming from the lower one ended one-half inch from the base of the upper. A check valve in the lower pot was placed to prevent siphoning through. The water level in the lower compartment should not exceed two-thirds full, heat should be applied by means of a hot plate or gas burner, and the vapors will be emitted in a steady stream and directed near the patient.

Disappearance of blood from the sputum was accomplished by this method after a short time. Inhalations should be given every four hours at first, then gradually lengthening the intervals until the patient could take one or two a day, duration of about half an hour. It was found that under this regime there was no further return of hemoptysis.

Blood and urine analysis were made and the blood pressure taken at various intervals during the course of treatment to determine any alterations, and it was found that the blood showed an increase in coagulability, a slight increase in percentage of hemoglobin and a slight increase in the red and white cells in general.

According to some researches conducted in 1889 by Bremond and Hénocque, the internal administration of turpentine in therapeutic doses increases bodily oxidation and improved nutrition. Urinalysis was negative for albumin or casts. Blood pressure taken at different intervals showed that it remained stationary or a tendency of a slight increase of 5 to 10 mm.

In the treatment of hemoptysis by the vaporization method I wish to emphasize a point, in that in all acute hemorrhages from the lung the situation should be met with at once by our standard methods such as absolute rest and opiates until the acute stage has passed and a diagnosis can be made before resorting to the inhalation method. After a positive diagnosis is made of tuberculosis the vaporization can be

given immediately for the further control of recurrent hemorrhage.

The problem of recurrent hemorrhage has always been the problem the phthisiologists had to combat against the mental and physical welfare of the patient, so in resorting to an agent which will almost assure the patient that he will have no more recurrent hemorrhage I believe is a step forward in the advancement of science in this particular type of case. Nothing discourages both the physician and patient more than to have a hemorrhage occur in the midst of what may seem to be an improved clinical condition. Whatever method of treatment used by the phthisiologists whether it be with specific biologicals or natural methods I believe it will add a valuable adjunct in any form. There are no contra indications in its use and can be used with impunity and with safety.

In so far as its action on the tubercle bacilli and on the tuberculous process, I am not ready to make any reports as yet. In conclusion, hemoptysis, or the spitting of blood, fortunately has brought many a patient to the doctor earlier than any other symptom of any of the outstanding chronic diseases. Many a case of chronic pulmonary tuberculosis may go along for months and cause no alarm to the patient until he discovers blood in his sputum. He must then see the doctor at once to ascertain the nature of such blood, and this creates in that patient an anxious attitude which his physician must cope with in order to assure him of the importance of proper treatment and subsequent care. When the practitioner meets with such a case he immediately suspects a tuberculous condition until he can rule out any of the other possible causes, and until the diagnosis is made he must seek to relieve the condition as early as possible by the usual methods. Therefore, I believe that, if we can eliminate the possibility of hemorrhagic tuberculosis of recurrent type by whatsoever method, we would have made a

great step forward in the advancement of therapeutics, and I believe we will also open the avenue for further research in combating the disease itself.

CONCLUSIONS.

Dichlorobenzine compound, non toxic, non irritating, offers a valuable aid in hemorrhagic tuberculosis and does not interfere with any of the standard treatments now used to combat this disease.

DISCUSSION.

Dr. W. J. Durel (New Orleans): Of course the question of hemoptysis is a broad one. As far as saying anything about this method of treatment, I know nothing about it. I would like to ask Dr. Bertucci if that is the same vapor they used in my old sanitorium.

Dr. Bertucci: No, doctor. This is a white preparation and the other is black.

Dr. Durel: Fortunately for us, hemoptysis does occur in some tuberculous patients because we can treat them when they do have hemoptysis. That is probably the best thing that can happen to tuberculous patients, because we know that in about ninety-eight per cent of the cases with hemoptysis they will cure themselves without any treatment. There is no doubt about it if the doctor doesn't come there and make too much of it. In other words, ninety-eight per cent of hemoptysis will cure themselves. The patient will spit blood and it will be all over. That is our experience when we had quite an extensive number of cases.

There is one word I want to say about the treatment. Don't give morphine. One dose might be sufficient, but do not repeat the administration of morphine. We have noticed that since we have done this we have curtailed the post-pneumonic complication of hemoptysis, and that is the real danger of hemoptysis. By giving morphine repeatedly you are checking the bronchial reflexes causing secretions in the bronchial area, and you have a backing up gradually in the vesicular area a great amount of absorption of this toxic matter, and of course greater toxicity and greater chances of toxic pneumonia which is the chief cause of permanent hemoptysis. Again I say it is purely a symptomatic treatment.

One thing we have noticed recently that has helped our hemoptysis patients a good deal is a large dose of Epsom salts. Years ago that was brought to my attention by one of my audience. I used it empirically until recently I saw an article by some professor in Milan. It is mechanical, of course. You displace the arterial tension in the abdominal area and that displaces and decreases the pulmonary pressure and gives a chance for coagulation.

As far as vapors are concerned, I think the less you bother the patient the better it is. As far as the results of this, there have been about as many treatments for hemoptysis as there have been patients.

Dr. W. H. Seemann (New Orleans): I think this paper of Dr. Bertucci is very timely, and while I do not practice phthisiology I am very much interested in the subject.

I happen to be connected with the national association and our local association here, and of course anything that will give us improvement in our handling of tuberculosis is a matter of great interest to me.

I had an opportunity of serving the Charity Hospital as intern, and I went out on the ambulances. Since then I have had a very large general practice before I began to do preventive medicine and laboratory work, and I have had opportunity to see a great many hemorrhages. I visited several large institutions for the treatment of tuberculosis, including Government institutions, and it is my opinion about pulmonary hemorrhage in tuberculosis that the patient is going to die right now or is going to get over it; I mean with possibly one or two per cent of error.

I am glad Dr. Durel mentioned this Epsom salt proposition. I had occasion to know it was used for a great many years. The theory of its use is the elimination so that the patient may get rid of any extra load he may have to carry, at the same time using magnesium sulphate as a sedative action.

I want to emphasize caution in the use of morphine. Morphine will tie up excretions which will prolong illness and post-hemoptitic temperature and induce a hemoptitic pneumonia.

There is one thing about the inhalation method that I am most interested in, as one of the advisers you might say to the public in my official capacity: the danger of people believing they have a cure for tuberculosis in one of these humatoriums.

I am very glad Dr. Bertucci especially mentioned the fact that he claimed no curative action up to now on the tuberculous process. The A. M. A. and our national association have sent men down here to investigate certain institutions where fuming processes are operated. I know some very excellent men who told me wonderful results had been achieved in these places. Unless you have a parallel series under the exact environment and dietary conditions you can't evaluate any treatment like that. This fumigation business is older than chloroform. It was in England in the operation of one of these places that different gases were used and the anesthetic value of chloroform was ascertained in the therapeutic hospitals.

I want to add to the caution which I believe is in Dr. Bertucci's paper, that he simply regards this as a therapeutic addendum to the armamentarium, and not as a cure for tuberculosis.

Dr. J. G. Dempsey (New Orleans): When tuberculosis or cancer subjects are discussed, particularly tuberculosis, I do believe we should be ever ready to encourage an attempt to do something for tuberculosis. I congratulate Dr. Bertucci in his efforts. He has been trying to do something.

The experience I have had with pulmonary tuberculosis and pulmonary hemorrhages dates back to the War. During that time I was assigned to a service in the southern part of France when women and children prisoners were brought in from Germany over the Swiss border into Avignon. They were herded into the casino just like a lot of animals, many having been two and three years in prison. The women and children had pulmonary and other hemorrhages, the cause of which we were unable to determine. Our attempts to diagnose at the time were rendered more or less vague but still we treated them on general principles.

Some of them were almost in a comatose condition. We unhesitatingly administered one dose of morphine, and it was a good dose. We unhesitatingly introduced a stomach tube and had a funnel with a solution of Epsom salts almost concentrated, and poured as much as a pint into the stomach. Where there were two or three or a hundred of those unfortunates we couldn't spend much time with them, but proceeded right down the line. To my great surprise (there were some in a serious condition) they showed some signs of reacting. The color of the skin cleared up and some of them became decidedly white.

Those patients remained there for thirty-six or forty-eight hours until we were able to move them. They were carried down to the hospital of which I had charge. There wasn't much to be done except give them rest.

At that time in St. Etienne, in the southern part of France, there was an inhaler that they were very anxious for us to use. We had a hospital for tuberculosis, so I gave it a trial. They were using the arsenical fumes. They had a contraption not exactly on the order of the one described. Although very thorough, the French are frequently elaborate. Instead of apparatus that we might concentrate in a two-by-four space, they have an enormous affair requiring perhaps fifteen by thirty feet. I tried it on a few cases. Over those that died I held autopsies. I found there was an eschar in the trachea no further down than two inches. There were absolutely none of those fumes that had touched the lungs proper.

Therefore, if this new compound can be in-

haled and carried to the lung we have much to look forward to. Any young man who has an opportunity to study this should be encouraged. For the last fifteen or twenty years I have made it a point to countenance any attempt from the tuberculosis and cancer standpoint. Let us lend our past experiences towards the development of the science of medicine.

Dr. E. A. Bertucci (closing): I thank you gentlemen very much for the discussion of this paper.

Answering Dr. Durel's question whether it was the same product that was used in Covington in the sanatorium I was affiliated with, I will say that it is not. This preparation is entirely colorless and of a different formula entirely. The one used in Covington was a pine-tar preparation and extremely black. During my connection with that institution over there I didn't have time to investigate the nature of that particular treatment because of the fact that the institution was financially embarrassed and the patients did not have enough money to come to the institution and therefore it was dissolved.

I will say this with regard to the penetrating qualities of the dichlorobenzine, which Dr. Dempsey brought up, that the dichlorobenzine is very penetrating. I do believe the fumes penetrate and reach the alveoli cells. Dichlorobenzine itself is one of the most remarkable penetrating agents that we have today. It will penetrate wood. You can place it on a two-by-four piece of lumber and you will notice that the penetrative qualities of the dichlorobenzine are remarkable. I believe the vapors have the same effect, and that is the only agent I know of that will penetrate deep enough. It also has a fat solvent property which I am in hopes might have some action on the fatty capsule of the tubercle bacillus itself, although up to this time I haven't been able to make any definite observations because it is a little too early.

I was expecting the question: What is the cause of the hemostatic effect? I will tell you what I think the hemostatic effect is due to, from the experiments I have conducted on the ear veins of rabbits and noting the time it took to check the hemorrhage. I believe there is no direct chemical action upon the blood itself, but that the action is due to a physical one, namely, that it activates thrombin. When the cells are liberated in process of a hemorrhage there is a certain amount of dissolution which takes place, and we will not have any coagulation nor any formation of fibrin until the fibrinogen in the blood is activated by thrombogen for the production of thrombin, and lastly for the formation of calcium fibrin. I believe it is due to the dissolution of the blood cells themselves, and this particular agent activates thrombin in order that it may form the insoluble fibrin.

ROENTGEN-RAY EXAMINATION OF THE STOMACH.*

R. C. FINLAY, M. D.,

GREENVILLE, MISS.

A great many ailments in and out of the abdomen express themselves in derangements of the stomach. It is barely possible we were thus constructed so as not to eat if sick. This, of course, is conjecture and not offered as fact, and perhaps a poor guess, for we all more or less eat when we know we should not. Howbeit, many ailments not of the stomach upset it, and their effects are not unlike maladies of the organ itself. So, as a result, a most frequent question in diagnosis is what is the condition of the stomach.

Thirty-one years ago it was Roentgen's great privilege to discover the light that bears his name. The time is not too long to take all of novelty from it. I do not know whether it is the novelty of it or a compliment to its precision that the accuracy of its findings are so often expressed in percentages.

I once asked Professor Hickey of Michigan how accurate he thought a roentgen-ray diagnosis of the stomach should be. With characteristic sagacity he replied it depended on the build of the patient. A recent article by Bowman on examination of the stomach under pressure technic starts by saying "the greatest obstacle to accurate diagnosis of intra-abdominal organs is the abdominal wall."

Changes in the location of the stomach may be due to herniation of the organ or pressure of other viscera such as the spleen, liver and colon. Tumors of the liver, pancreas, colon, kidney or mesentery, particularly, or any of the neighbor structures may be a cause of changed form or location. Inflammatory masses or adhesions may deform it.

Benign tumors of the stomach wall itself are frequently mistaken for malignancy,

but being rare, the error is pardonable. Polypi-fibromata, hemangiomata, and bezoars are the most frequent. Deformity of the stomach wall itself is often caused by spasm of its muscle fibers due to causes within itself or referred from other viscera. A spasm either of the stomach proper or the duodenal cap should first be proven not due to ulcer before a cause is ascribed for it.

Cancer of the stomach is the gravest lesion of the organ and the one in which early diagnosis is the most important, but unfortunately, hard to detect at a time when its detection would be most useful. Haudek gave four causes for the failure to detect cancer: (1) Its latent period; (2), delayed roentgen examination; (3) faulty roentgen examination; and (4) incompleteness of our modern roentgen technic. Only the last warrants comment. It seems as if the matter needs an entirely new approach, not unlike the state of diagnosis of duodenal ulcer was before the direct delineation of the lesion was attempted. Substitution of direct delineation for indirect signs brought great improvement in accuracy.

Before the tumor is visible to the roentgen-ray, inflexibility of the stomach wall is the earliest sign of carcinoma. Inspection under palpation would seem to be sufficient to discern this, but it is difficult. Hence the revival of the old polygram and multiple tracings. The polygram, let me recall, is the taking of several exposures on top of each other. The fixed part of the wall will be the only part not blurred. Less crude is the taking of several separate films, tracing them and overlaying the tracings. Tracings of fixed sections will then coincide giving a sharp line. The motile parts will not. After the tumor is delineable the disease has advanced to where few cases are operable with success. Ulcer accompanied by inflammatory exudate and syphilis are the most frequent imitators of cancer.

Ulcer of the stomach itself is usually near the lesser curvature, more often on

*Read before the Section on Radiology at the Sixty-fourth Annual Session of the Mississippi State Medical Association, Jackson, May 13, 1931.

the posterior wall than the anterior, but generally merging into the lesser curvature border. There may or may not be a spasm or incisura at the zone of the ulcer. Peristalsis is reduced and emptying is delayed. The ulcer niche, if large, makes the suspicion of malignancy enter, especially if the base is rigid. Ulcer of the greater curvature is regarded by most authorities as always malignant. Ulcers of the posterior or anterior wall, unaccompanied by spasm, can best be delineated by small amounts of barium and under pressure. Changes in the course of the rugae, and the barium filled crater, with or without a rim, are to be sought for.

Duodenal ulcer requires the deformity or niche with or without accompanying spasm for diagnosis. The niche, one or more, may be on the border, when seen in silhouette; or may be only a fleck as barium is pressed out of the viscus. The spasm usually surrounds the zone of the ulcer but does not always do so, taking on a bizarre shape instead. Ulcer of the duodenal cap may be the only explanation for a spasm of the stomach proper. Ulcer of the duodenum may or may not occlude the outlet. Whether it does or not governs the emptying time.

Duodenitis is an entity of which much has been written lately. The duodenum shows an irritability, is difficult to keep filled with barium, is usually contracted but does not show an ulcer niche. Kirklin of the Mayo clinic has a report on forty-five cases proven by operation, in which the duodenum was opened, and no ulcer seen. The clinical behavior of the organ imitates ulcer even to visible or occult blood on occasion.

Gastro-jejunal ulcer occurring after a gastro-enterostomy is difficult of delineation, but possible by the use of small amounts of barium. Seeking the fleck or diverticulum as the small trickle goes through, and pressure is being made is the essence of the method. Also there should be deformity of stomach, stoma or jejunum. Possibly there may be gastro-

jejuno-colic fistula or closure of the stoma. The niche is usually in the efferent loop in the first six inches.

This account scans the most important points in a very large field. Examination of a viscus subject to so many changes so important to the patient needs painstaking care, thought, and often repetition for results to be depended upon.

DISCUSSION.

Dr. C. C. Hightower (Hattiesburg): The essayist has covered his subject so well that little remains to be said. I would like to say a few words concerning the technic of roentgen-ray examination of the stomach. I have found by experience that I depend almost entirely on the fluoroscope instead of the skiagraph. A few years ago I was in the fluoroscopic room of one of the country's foremost clinics, and noticed the doctor in charge diagnosing cases after the fluoroscopic examination but before the skiagraph was made. I asked him why he made the diagnosis before the skiagraph was made, and he informed me that they depended on the fluoroscope for the diagnosis and made the skiagraph only for record. This was encouraging to me for it corresponded with my experience.

Like all other laboratory and technical procedures, the roentgen-ray examination of the stomach will prove more correct if considered in connection with the history, symptoms, acid content of the stomach, etc., in other words, making a diagnosis of a stomach lesion by exclusion as well as by direct examination.

Dr. B. H. Nichols (Cleveland, Ohio): In regard to the diagnosis of gastrojejunal ulcer we feel it is quite essential to always follow this examination by a retention plate in four or six hours which will sometimes show the ulcer crater still filled. In regard to gall-bladder examinations, we have discharged the follow-up on gall-bladders for emptying time, feeling that any gall-bladder that has concentrated enough iodine from the dye given orally on the previous evening to show a gall-bladder shadow in the morning must have filled and emptied many times during the night to produce this shadow. We then make the gastrointestinal examination in the morning while the gall-bladder is still filled to determine its relation to the duodenum, and in this way adhesions and deformities may be definitely ruled. I am not in accord with the doctor's method of reporting only the findings on his roentgen-ray films and allowing the internist or surgeon to undertake the evaluation of such findings. I feel that the radiologist should arrive at a definite conclusion as to what his findings mean in relation to the case. Also reporting an ulcer with the statement that it

may not be an ulcer seems to me to be of little help to the surgeon or internist, who usually refers the case to the roentgen-ray department for the purpose of determining whether the patient has or has not an ulcer, so that he may account for the symptoms of which the patient complains. Although it is difficult for the radiologist to make a definite diagnosis I feel that he should attempt to do this, and if he is undecided he should make a statement to that effect in his report.

Dr. R. C. Finlay (closing): I take it from Doctor Nichols' statement of his scheme of stomach examination that he disregards the third picture of the gall bladder, and I would like to hear him say more about it.

GRANNY MAGIC.*

J. A. CRAWFORD, M. D.,

LAKE CHARLES, LA.

The apology for writing this paper is based on the fact that there is widespread superstition and ignorance existing, not only among the laity, but to some extent permeating the activities of the profession at large. If these practices were limited to tales of folk-lore, they could be condoned as simple amusement, and laughed at, but the pity of the condition is; that rank superstition is exercised in the prevention and treatment of many serious symptoms and diseases.

While different strata of lay people are guilty in the practice of every possible variety of "Granny Magic," the profession is also guilty in the perpetuation of certain empirical practices, handed down from the hoary ages when medicine was half science and half magic, and when symptoms were treated instead of causes of disease.

It is significant that the helpless infant has been made the goat, due, no doubt, to the fact that he is a victim unable to do more than make a more or less mild protest, but in the end, submit to those in whose hands lie his destiny. So that the bulk of this magic is thrust, as it were, on his tribe.

This magic, it must be understood, is not altogether limited to the ignorant classes, but is also widely practiced among the

otherwise educated and intelligent people, for example: Unscrupulous leaders of a certain religious domination in a Southwest Louisiana town are guilty of selling "Healing Prayers" printed on the cheapest paper obtainable, the printing conforming to the shape of a cross, and promising immunity from all ills,—toe-itch to bubonic plague, wealth and wisdom, if the "Prayer" is worn next to the chest day and night. These are sold at various prices to suit the individual buyer, some as cheap as twenty cents, and more elaborate ones, a dollar. This outrage was no doubt intended originally for the ignorant negro, but it also caught the ignorant white.

It is a common sight to all of us who practice in the more or less rural districts, to see: mole's front feet, boar's teeth, wild swamp root, garlic, onions etc. *ad infinitum*, strung around the baby's neck to facilitate teething or to prevent sore throat. And again: for "Thresh", "Get a child who has never seen its father to blow into the baby's mouth nine mornings in succession before sunrise and it will be cured".

It is considered criminal to cut a baby's finger nails, as it will become a thief when it grows up. Finger nails must not be cut on Fridays as this will cause toothache, but if one does have toothache, tobacco will cure it.

The wearing of a bag of asafetida around the baby's neck will prevent diphtheria (skunks are also immune).

"Sore eyes will be cured by applying mothers milk; a bag of dead ants, or dead wood ticks tied around the baby's neck will also cure sore eyes." Another remedy for sore eyes is to wipe the eyes with the wet diaper several times daily.

"Saffron tea will bring out measles and chicken pox."

For "Collick" the baby is given a concoction of senna and rhubarb.

Earache is treated by the application of a bit of kinky wool from a negro's head into the external canal of the offending ear.

*Read before the Louisiana State Medical Society, New Orleans, April 14-16, 1931.

"A string of amber beads will prevent croup."

"Sties will disappear if rubbed with a wedding ring, or if touched with the tail of a very black cat."

Goose grease and molasses are given internally for colds, and lard mixed with turpentine should be rubbed on the chest.

When spring approaches the regulation sulphur and molasses will purify the blood.

If a child has fits a puppy is given it to play and sleep with, when the dog dies the child is considered cured.

Chicken-pox is treated by bathing the child with water in which a chicken has been scalded.

"A baby will certainly have the seven-months colic if a menstruating woman picks it up."

Soot from the stove or fire-place is a standard dressing for the cord stump. Soot from hard wood fire is considered more efficacious than any other.

For colic: flagroot, catnip, coltsfoot, powdered egg shell, dirt daubers nest, snake root, lady'slipper, nutmeg and chicken gizzard, also milk through which tobacco smoke has been blown, are all excellent remedies.

For persistent crying: the first time the mother leaves the house after the baby is born, a thimble is taken to a well, filled with water and carried back to the house without spilling a drop and given the baby to drink.

For bed-wetting: the feeding of a fried rat to the child is a specific, though some use a rat pie instead.

So much for lay magic, though one may go on enumerating without exhausting the supply. Now let's turn the spot light on the "Learned Profession." About the first indignity perpetrated against the innocents is the belly-band. This instrument of torture has all of the ear-marks of a relic from the Spanish Inquisition. It is supposed to: protect the adnomial wall, protect the spine, protect the cord-stump, to hold the cord dressing in place, to prevent um-

bilical hernia, to keep the body warm etc., the fact is that it never does any of these things. Frequently it is put on so tight that it prohibits the infantile breathing, forcing the thoracic type of breathing on the infant, thereby making irritable and otherwise uncomfortable a happy baby. This apparatus is never comfortable or useful, it is either: too tight, too loose, too high, too low or else too wet, and in my opinion it has no place in the new-born wardrobe.

A majority of us initiate treatment of all cases coming under our care with calomel or castor oil or both, expecting a miracle to happen, and it does frequently in spite of the punishment.

It may interest some of you to know that fully fifty per cent of breast-fed babies with gastro-intestinal upsets have had nursing mothers who give "poison milk," the doctor told the mother so and advised EB. or DB. instead.

Probably the ranking superstition on the food list is the faith vested in rice water and barley water. Infants are condemned and sentenced for from one to three weeks on a bread and water diet, minus the bread, and expected to recover.

At the risk of being slaughtered by a barrage of gun-fire coming from popguns and big berthas, I am going to mention sweetened condensed milk as a superstition when used as a permanent infant food.

There is a clan whose bylaw is dogma, and they advise the mother to give their babies milk only for the first twelve months. All other food is dangerous and must not be trusted. The white, pasty, flabby and rachitic specimen is a fitting advertisement for the dogmatic one, but a source of much concern to the anxious mother.

"Working off a cold" with castor oil, is straffing the gut to cure the nose. This is indeed the extreme exercise of faith but a great indignity to the suffering baby who might have an acute tonsillitis, diphtheria, abscessed ears or a bronchitis.

"He'll out grow it", is a very much abused phrase. We out grow nothing except possibly a bib or hippins. The promise that the child will out grow a chronic upper respiratory infection, is rash to say the least.

And now "Green oil for the ears". The drop of blood which the layman coaxes from the "Bessie Bug" is equally efficacious, and a great deal easier to wash out when actual treatment is instituted.

The poor nursing mother comes in for her bit of this tomfoolery, and is admonished to "Eat no vegetables, no meat, very little fruit, but stuff yourself with gallons of milk, tea and cocoa." Then if the baby does not get enough breast milk, it is immediately weaned from the breast and given EB. or DB., instead of getting a complementary feeding with each nursing.

The wide spread use of "Anti-progistine" by all of the different paths, for pleurisy, pneumonia, angina pectoris and osteomyelitis, is equivalent to throwing up ones hands in despair to grope in darkness. In

the words of the inimitable Frank A. Jones: "Whenever I find it on a patient of mine I want to say DAMN."

Last but not least is "Stool Worship." Some of us are continually poking our smellers and peepers into stools, and dosing the healthful infant who is gaining weight and growing happily, with this and that, because its stools "Do not look right" or "Do not smell right." Many times we get into real trouble by treating stools instead of the baby. In a large eastern hospital a member of the staff had the nurses report elaborately on each stool passed by every infant. A great deal of information was elicited on the character of the stools. The numerous descriptions given the stools by the different nurses on duty, varied widely in all except one quality, ie., under the column headed "Odor," the answer was invariably "Bad."

Let's get away from all this "Granny Magic", find out the facts and face them, and then appropriate what little truth we have learned.

Fees for Services.—There appears to be a surprising amount of standardization in the fees charged by different physicians throughout the country for their services. In Stockton, as well as in the communities outside, the standard charge for an office call is \$2.50, that for a home call (day) \$3, and the charge for a night call \$5. The deviations from these standard charges are very few. Of 65 physicians reporting, only 3 charge more than the standard fee of \$3 for a home call, and only 1 charges less than that amount. For night calls, only 3 out of 60 reporting charge more or less than \$5.

A question of great interest to both the physicians and the public is the extent to which the former make adjustments in their fees to patients who for one reason or another cannot pay the established charges. It is to be regretted that only a very indefinite answer may be derived from the data obtained in the course of the survey. In the schedule submitted to physicians the questions were asked: "During the past three months, (a) how many patients did you treat free

of charge, and (b) how many did you treat at a reduced fee?" An examination of the answers makes it evident that the replies are approximations which can be used merely as indicators rather than as definite measures. Of the 60 physicians who replied to (a), 5 apparently had no free patients during 1929, 21 considered that their free patients represented from 1 to 2 per cent of their practice, and the other 34 estimated that they gave free care to 3 to 40 per cent of their patients. Fifty-nine physicians answered question (b). The answers in terms of the percentage of the total patients treated ranged from 0 to 50.

It appears that some of the physicians who did not wish to give free care or to treat patients at reduced fees referred to free clinics such patients as applied for financial adjustments. However, the total number of patients so referred is apparently not very great.—Sinai, Nathan, D. P. H.: A survey of the medical facilities of San Joaquin County, California. Publications of the Committee on the Costs of Medical Care: No. 12, p. 41.

NEW ORLEANS

Medical and Surgical Journal

Established 1844

Published by the Louisiana State Medical Society under the jurisdiction of the following named Journal Committee:

S. C. Barrow, M. D., *Ex-Officio*
 For one year: W. H. Seemann, M. D.,
 Randolph Lyons, M. D., Secretary
 For two years: John A. Lanford, M. D.
 For three years: S. M. Blackshear, M. D.,
 H. W. Kostmayer, M. D., Chairman.

EDITORIAL STAFF

John H. Musser, M. D. *Editor-in-Chief*
 Leon S. Lippincott, M. D. *Editor*
 Willard R. Wirth, M. D. *Editor*
 H. Theodore Simon, M. D. *Associate Editor*
 G. C. Anderson, M. D. *Associate Editor*
 D. W. Jones, M. D. *Associate Editor*
 Jacob S. Ullman, M. D. *Associate Editor*

COLLABORATORS—COUNCILORS

<i>For Louisiana</i>	<i>For Mississippi</i>
H. E. Bernadas, M. D.	J. W. Lucas, M. D.
Daniel N. Silverman, M. D.	L. L. Minor, M. D.
C. C. DeGravelles, M. D.	M. W. Robertson, M. D.
J. B. Benton, M. D.	Thomas J. Brown, M. D.
C. P. Gray, M. D.	Willie H. Watson, M. D.
J. H. Slaughter, M. D.	W. G. Gill, M. D.
C. C. Iles, M. D.	Jos. E. Green, M. D.
J. H. Landrum, M. D.	J. W. D. Dicks, M. D.
	D. J. Williams, M. D.

Paul T. Talbot, M. D. *General Manager*
 1430 Tulane Avenue

SUBSCRIPTION TERMS: \$3.00 per year in advance, postage paid, for the United States; \$3.50 per year for all foreign countries belonging to the Postal Union.

News material for publication should be received not later than the twentieth of the month preceding publication. Orders for reprints must be sent in duplicate when returning galley proof.

THE JOURNAL does not hold itself responsible for statements made by any contributor.

Manuscripts should be addressed to the Editor, 1430 Tulane Avenue, New Orleans, La.

THE APPROACHING A. M. A. MEETING.

The officers particularly, and all enthusiastic members of the local Louisiana parish and Mississippi County Medical Societies as well, have this year a peculiarly forcible argument to encourage those medical men in their localities who have not joined the local units, to become members of organized medicine. In New Orleans will be held early in May the greatest medical meeting held in the world, bar none. This annual convocation of the American Medical Association is replete

with attractions, scientific and practical. It affords an unsurpassable opportunity to hear, to see and to learn. A man who attends the meeting as a member of this great association of doctors can not help but feeling pride in his membership as he sees all that has been prepared for his edification and as he visualizes what the A. M. A. is doing for medicine and the doctors. The man who attends the meeting and does not belong to the Association must feel mean and selfish to think that he is not doing his share.

These facts should be presented to the recalcitrant physicians of Mississippi and Louisiana; they should be strongly urged to join up with organized medicine as there can be demonstrated to them concrete evidence of the greatness of the national organization of medical men. If these self-evident truths are presented by the local secretaries to those without the fold by personal contact or by a series of letters the membership of the two great state associations should be greatly augmented this year.

VOMITING AND DIGITALIS.

Up until comparatively a few years ago it was thought that the emetic action of digitalis depended entirely upon local irritation of the gastric mucosa. It is upon this hypothesis that many well intended physicians in the past have attempted to give digitalis either into the skin or into the vein in order to obviate the nausea and vomiting that is so common if digitalis is pushed to a full therapeutic dose. Numerous experimental investigations, both in the laboratory and the clinic, have shown that the nausea and the vomiting are central in origin and that it makes no difference in what way, form or manner the drug is administered just so it is given in doses sufficient to stimulate the vomiting reflex. The observation that nausea is one of the first symptoms of digitalis intoxication has led to the utilization of this symptom as a method of determining when the patient has received a

sufficient amount of the drug and has become digitalized. It has been noted, furthermore, that after an attack of nausea, and possibly vomiting, if the drug is not stopped, these gastric symptoms will cease in a certain number of cases. Herein lies danger if certain facts recently shown by some recent work from the Department of Pharmacology of the Cornell University Medical School are not considered.* The workers at this institution have shown that if digitalis administration is persisted in, even after nausea and vomiting have stopped, increased poisoning of the heart results so that there may develop ultimately a toxic rhythm without emesis, notably shown by bigeminy, premature beats, and block. It is highly possible that if the drug is not stopped in time as more and more of it accumulates within the body, the patient may die of digitalis intoxication. Such an event happens in the experimental animal, and may well happen under clinical circumstances.

The authors hold that the most probably explanation of the change in the response of the vomiting reflex depends upon repeated cumulated doses of digitalis, which persistently accelerate the cardiac poisoning but simultaneously directly depressing the vomiting reflex. They were unable to develop any direct evidence of the exact seat of the depression of the vomiting reflex nor any accurate explanation of the increase in the threshold to stimulation by digitalis. The clinical observations, as well as animal experiments, indicate that from time to time active carditis and the progressive myocardial failure of the last stages of heart disease render the patient most susceptible to toxic rhythms due to digitalis. Irrespective of the why and wherefore of this particular action of this extremely important heart drug, the important fact remains that those clinicians who are accustomed to wait for the

development of nausea and vomiting should be cautious in their further administration of the drug, even if the patients announce that they no longer feel nauseated! The cumulative effect may increase despite the fact that apparently the nausea and vomiting have been adequately controlled by a slight reduction in the dosage of digitalis.

THE DRUGGIST.

A recent publication of the Committee on the Costs of Medical Care entitled "A Survey of the Medical Facilities of San Joaquin County, California," presents some very interesting statistics which cover the practice of medicine in this typical American County. It would be impossible to comment on the report in toto.

The chapter on Drug Stores demonstrates what is well appreciated: that the average drug store has become more or less a general merchandize establishment, in which store the dispensing of prescriptions has become a minor service and function. The statistics of the Drug Stores in Stockton show there were thirty-nine in the City. Twenty-eight of those average less than one thousand prescriptions in the course of a year and several of them do not average five prescriptions per pharmacists per week. If practice makes perfect, certain the pharmacists of that City are having very little opportunity to acquire skill. The bulk of the prescriptions are put up by one or two large stores.

The gross sales of the druggists in Stockton amount approximately to one million and a half dollars. About 40 per cent of this is from the sale of drugs and other medical supplies. There is a tremendous amount of waste and duplication in the running of the drug store. Some of these stores in Stockton carry as many as thirty-four brands of cod-liver oil, 148 brands of liver pills, and 65 varieties of tooth paste. The digitalis and barbituric acid preparations indicate well this wasteful tendency. The percentage of money invested in the standard forms of digitalis

*Gold, Harry, Travell, Janet, and Kwit, Nathan: Depression of the Vomiting Reflex by the Digitalis Bodies. *American Heart Journal*, 7:165, 1931.

preparations, the tincture and the powder, is 34 per cent, the other 66 per cent being proprietary preparations. Practically the same figures hold true for the barbituric acid compounds.

These facts illustrate the efficacy of the sales plea of the detail man to the physician.

A study of the prescriptions ordered in 1909, 1919, and 1929 was made. The current prescriptions were found to contain fewer ingredients than those of twenty years ago. On the other hand, they contained a greater percentage of proprietary ingredients. The tendency to polypharmacy has decreased but the increase in the prescribing of proprietary preparations has been on the increase. In part the physician may be responsible in the increased cost of medical care, because the prescription which contains official ingredients only are considerably cheaper than those who contain proprietary ingredients.

The average cost of a prescription is one dollar and five cents.

Although the physician is responsible for the prescribing of proprietary preparations the druggist does not feel responsible for the so-called counter prescribing. Often the physician verbally instructs the patient to get a bottle of a certain preparation. The patient subsequently orders the preparation for himself as he feels fit without the advice and guidance of the doctor. Frequently the same result is obtained by the physician giving a sample to his patient. Most of the counter prescribing, according to the druggist, consists of the selling of some proprietary for the relief of minor ailments.

The medical sales represent only 44 per cent of the gross sales in the drug stores while the prescription sales represent only 10 per cent, and only 21 per cent of the total gross medical sales in which items are included patent medicine, home remedies, and sick-room supplies.

HOSPITAL STAFF TRANSACTIONS

SURGICAL STAFF OF CHARITY HOSPITAL.

The Surgical Staff of Charity Hospital held its regular monthly meeting, January 20, at 8:00 p. m. in the Nurses' Auditorium. Eighty-eight members were present. The meeting was called to order by Dr. I. M. Gage, Chairman, and the minutes of the previous meeting read and approved.

Under unfinished business Dr. Gage reported his investigation of methods of preparing and storing drains and certain types of suture material. All such packages will carry dates in the future. He also called the attention of the Chiefs of Staff and Assistants to the ruling that they are responsible for the complete upkeep of records on their services. Dr. Gessner requested that in cases of discharge, desertion or death the records be held on the Ward until approved by proper authorities.

There were no new business, correspondence, or committee reports to be considered so the meeting passed to Scientific Session and the following cases were considered.

1. Colored male, 46, admitted December 6, died December 13. Endereritis-obliterans with gangrene. Arteriosclerotic gangrene.

2. Colored male, 43, admitted May 3, died December 26. Carcinoma of the stomach versus peptic ulcer. Operated upon May 12, Billroth No. 2

with anterior anastomosis. Readmitted October 21 with symptoms of obstruction. Died. Autopsy showed massive adhesions around gastro-jejunos-tomy. Case discussed by Drs. Walet, A. C. King, and Cassegrain. The operator was not present. Dr. King suggested that the secretary notify those members whose cases were to be discussed.

3. Colored male, 25, admitted December 14, died December 16. Peri or ischio rectal abscess. Not found on examination. Had signs of obstruction. Operation showed abscess in the abdominal wall near the inguinal canal. Examination of scrotum negative. Retroperitoneal peritonitis. Autopsy showed acute general peritonitis. Scrotum contained a large amount of pus. Case discussed by Dr. Emil Bloch and Dr. Connell from the Pathological Department.

4. Colored male, 55, admitted December 10, died December 6. Possible fracture of skull. Picture was suggested of extra dural hemorrhage.

5. White male, 42, admitted November 24, died December 6. Ruptured appendix with general peritonitis. When operated upon feces were found to be pouring into the peritoneal cavity. Discussed by Dr. Maes from the standpoint of cecostomy.

6. White male, 46, admitted November 26, died December 28. Ruptured appendix with general peritonitis. Operation showed ruptured appendix, wide spread peritonitis, feces spilled in peritoneal cavity on removing appendix which was retrocaecal and bound by adhesions to the lateral abdominal wall. Rupture occurred at base which was found with difficulty due to many adhesions. Autopsy showed a fecal abscess walled off by the caecum and terminal ilium, encapsulated empyema on the right side, suppuration of the lower lobe of the right lung. The general abdominal cavity was free from infection and adhesions.

7. White male, 76, admitted October 12, and died December 20. Chronic osteomyelitis of the right second toe. Had incision and drainage then currtage with removal of bone, then amputation of the toe, and finally amputation of the leg using 200 milligrams of novocain for spinal analgesia. Case discussed by Dr. Lindner with a special reference to spinal analgesia.

8. Colored female, 15, admitted October 7, died December 1. Toxic myocarditis, central pneumonia, right unilateral fused kidney with left half pyonephrosis, left parotitis and toxic hepatitis. Operated upon as an emergency through a right rectus incision. A large mass was found occupying the mesentery of the small bowel to the right and anterior to the spinal column. Appendix negative. Sero-purulent fluid aspirated from the mass. Wound closed and turned on left side for right kidney incision. Mass opened from behind and a large amount of sero-purulent fluid evacuated. At a second operation on October 23 there was found in the lower left half of the fused kidney a large sac of pus which was dissected free and removed. Wound packed with gauze. Case discussed by Dr. Reed.

9. White female, 9, admitted November 12, died December 18. Broncho-pneumonia and empyema. Repeatedly aspirated and finally had open drainage. Case discussed by Dr. Danna from the standpoint of treatment by air replacement.

10. Colored male, 50, admitted November 3, died December 10. Acute exacerbation of chronic appendicitis. Case discussed by Drs. Cassegrain and Maes. Dr. Maes thought that the case might have been helped by ceceal drainage. Both Drs. Maes and Cassegrain discussed the use of spinal analgesia in such cases with reference to increased peristalsis. Dr. Loria discussed blood counts advocating that they invariably be done.

11. Colored female, 39, admitted December 2, died December 15. Chronic salphingitis. Operated upon December 8. Bi-lateral salpingo-oophorectomy, bilateral Norris suspension and appendectomy. Two days post-operative restless, dyspnoic with cold clammy sweat, pulse 160, respiration 36, temperature 93. Improved slightly fol-

lowing infusion. On December 15, died. This case was of much interest and was discussed by Drs. C. Jeff Miller, von Holm of the Pathological Department, Dr. E. L. King and Dr. Butke regarding the pros and cons of hemorrhage as a cause of death. No autopsy was permitted.

12. Colored male, 36, admitted December 6, died December 6. Chronic nephritis, stricture of urethra, acute extravasation of urine, early pneumonia. Autopsy showed bilateral pyonephrosis. Case discussed by Drs. Wolff, Danna, and Reed.

13. White male, 30, admitted December 24, died December 30. Fracture of skull, linear right temperoparietal-region. Slowly progressive loss until death. Possibly hemorrhage. Case discussed by Drs. Loria and Anderson.

14. White male, 78, admitted November 4, died December 13. Chronic nephritis, regeneration of prostate following prostatectomy, possible malignancy of stomach and pulmonary tuberculosis. Autopsy showed localized peritonitis with an eroded opening into the bladder covered by intestines and empyema on the left side.

There being no further business the meeting adjourned.

G. C. Anderson, M. D.

Sec'y. Surgical Section.

HOTEL DIEU.

The annual meeting of the Hotel Dieu Staff was held on Monday, December 21, 1931, Dr. Theodore J. Dimitry presiding.

The meeting opened with the presentation by Dr. Louis Levy of a case of ruptured appendix in a woman 85 years old, who had had no previous attacks. The appendectomy was performed under local and gas anesthesia (sodium amytal having been used pre-operatively), and free pus was found in the cavity. The patient is now doing fairly well.

Dr. Leo J. Schoeny offered a very instructive paper on "Peridontoclasia," a synopsis of which follows:

"The purpose of this paper is to arouse greater interest in this serious oral disease so that corrective measures may be instituted before general systemic involvement is brought about.

"Peridontoclasia belongs to the class of oral foci of infection responsible for such conditions as arthritis, endocarditis, myocarditis, nephritis, gastritis, dyspepsia, ulcerations of the stomach and intestines, intestinal indigestion, auto-intoxication and constipation. Food taken into the mouth is mixed with infectious matter before swallowing; at times the virulent effects of these organisms are destroyed by oral and gastric secretions. But there is direct invasion of infection through blood and lymph channels.

"Most types of periodontal disease (also known as pyorrhea, peridontitis, paradentosis or peri-

dontoclasia) show numerous pus pockets of various forms. However, the type that does the most harm by invasion of infection through blood and lymph channels, causing secondary foci in distant organs, consists of a very deep pocket whose opening is constricted, preventing free drainage. This type is sometimes overlooked since it is unaccompanied by pain or irritation, and there is no looseness of teeth nor hypertrophy of the gingivae.

"Peridontoclasia is frequently the result of disorders developed during early childhood; for example, malocclusion. With the new Victor Bolin, Jr., dental film, satisfactory radiographs can be made of the teeth of small children, regardless of age, size or restlessness. The time of exposure is $\frac{1}{4}$ second. Fourteen to twenty films are necessary for a satisfactory and complete examination and diagnosis; this is sometimes supplemented by extra oral and occlusal views; by the vitality test of all teeth to note the presence of non-vital teeth; and by a transillumination of the jaws. The examination shows infectious areas already developed as well as conditions which may lead thereto, thereby making it possible to institute corrective measures and prevent the disorder.

"When we consider that 78 per cent of persons over thirty have suppurative destructions of maxillary bones resulting from peridontoclasia, we appreciate the importance of recognizing the condition in its incipency before any serious systemic involvement.

"In spite of extensive research, no success has been met with in isolating a specific organism responsible for this disease; it is generally believed that the bacteria responsible are common inhabitants of the month, and non-specific. Accumulations of debris is on teeth favor infection of gingivae and peridental membrane, but are not the cause of peridontoclasia; it is often found unaccompanied by such deposits. Factors contributing are: Malposed, extruding and partly erupted teeth; empty spaces; tilting teeth; caries; drifted teeth with spaces between; and faulty crowns, fillings and bridges.

"It is now possible to completely eradicate the foci of infection without removal of teeth, providing there is sufficient bony support. Non-vital teeth, with suspicious peri-apical areas must be removed; also teeth of patients suffering with specific diseases as diabetes or syphilis. There are three types of treatment to eradicate pus pockets when retention of teeth is indicated: 1. Sub-gingival curettage (conservative treatment); 2, modified flap operation, and 3, gingivectomy. Surgery is never indicated with acute spirochete fusiform bacillus infection; the acute state must first be relieved. Some merit is claimed for ultra-violet and other physio-therapy measures.

"Successful treatment involves not only complete eradication of pus pockets, but correction of all predisposing and contributing factors.

Providing all details are carefully carried out and the patient co-operates with proper mouth hygiene and post-operative treatments, the prognosis is favorable.

"This statement is based on eleven and a half years practice, and on results reported by nationally recognized leaders in this field."

Dr. H. Theodore Simon presented three cases of marked deformity in arthritis, the first two cases being demonstrated by the patients in person, and the third by motion pictures. In some cases, he said, these deformities can be prevented by the use of splints or traction, and he advised the surgeon and physician to endeavor to prevent them where possible.

The first case had a greater than right angle flexion of the left knee. The patient (at the time a little girl) was treated for pyoarthritis and she developed the deformity which continued for twenty years. The operation performed by Dr. Simon was an arthroplasty (rather than an arthrodesis). In the post-operative treatment, at one time there was a ninety-degree flexion; however, in giving physiotherapy, a burn developed and treatment had to be discontinued for a time. At present the patient has lost some of the ability to flex the knee.

The second and third cases of deformities developing from arthritis were taken from the Home for Incurables. These patients are not usually good surgical risks and the operations must be performed quickly to avoid the danger of shock. In the second case, arthrodesis was done on both knees and a Ghant osteotomy was done on both femurs. This patient, once bed-ridden, can now walk. The motion pictures demonstrating the third case showed the boy walking on his knees with the use of short crutches, his knees being ankylosed at right angles. After the operations, which were arthrodesis of the knees, he walked upright, using a cane only.

Dr. Simon stated he does not believe any case is absolutely helpless until something has been tried.

Dr. J. A. Danna described the operation of arthroplasty as done by Dr. Putti in Bologna, Italy. The operation, which requires only twenty minutes, is done only when there is firm, bony union between the two surfaces that previously moved freely. The upper two ends of the bone are cut by chisel and mallet until the surface resembles as nearly as possible the normal line of the joint; separation of at least one inch is obtained; fascia lata is interposed between the membranes so that the ends of the bone cannot unite; and passive motion is begun early.

Dr. Simon, in answer to queries from Dr. J. B. Guthrie and Dr. Maurice Couret, closed the discussion by explaining the details of the chisels designed by Putti and by Will Campbell to carve out the contours of the joint—Putti's to exactly resemble the anatomical condyle, Campbell's form-

ing a condyle without the mid-ridge. Dr. Simon recommended arthrodesis for cases of atrophic arthritis, since arthroplasty is a longer procedure. He called attention to the necessity for constant vigilance after the operation, as the flexion may cause stretching of the nerves and also interfere with circulation, sometimes necessitating the cutting of a case.

FRENCH HOSPITAL.

A regular meeting of the French Hospital Staff was called to order Friday, December 18, 1931, Dr. M. J. Lyons presiding. The minutes of the last meeting were read and approved.

The reports of deaths and discharges were read by the secretary. There were nine deaths during the month of November. Among the interesting cases were those of laryngeal diphtheria, acute enteritis and colitis, and acute cholecystitis with chronic pyonephritis. These deaths were discussed by Drs. Alsobrook, Harris, M. J. Lyons and Socola.

A motion was passed to change the date of staff meetings from the last Friday to the second Thursday of each month.

The officers for the following year were then elected. These include Dr. H. B. Alsobrook, chairman; Dr. S. C. Lyons, vice-chairman, and Dr. C. J. Brown, secretary. Dr. M. J. Lyons then thanked members of the staff for their co-operation and interest during his term as chairman of the staff. There being no further business the meeting adjourned.

Cuthbert J. Brown, M. D., per G. F.

VICKSBURG SANTARIUM AND CRAWFORD STREET HOSPITAL.

Staff Meeting, January 11, 1932.

Abstract: Subdeltoid Bursitis.—Dr. A. Street. Patient.—White, female, aged 25, single.

Present Complaint.—Pain in right shoulder for past two days; impossible to raise arm on account of pain; some fever, anorexia and nausea.

History.—She fell on the right arm three months ago but did not strike shoulder. Recovery from this injury seemed to be complete. Tonsils had been removed. History otherwise not remarkable.

Physical Examination.—Not remarkable except for swelling of right deltoid region, painful motion of shoulder and tenderness of shoulder. Temperature 100° F.

Blood and urine examinations showed nothing abnormal.

Roentgenogram of shoulder showed calcification in the right subdeltoid bursa.

Treatment.—At first consisted of giving salicylates and intravenous mercurochrome. There was no improvement. The patient was then admitted to hospital and given 40 minutes of diathermy through the shoulder daily for three days. After the third day symptoms had entirely disappeared.

Abstract: Fracture of the Patella.—Dr. J. A. K. Birchett, Jr.

Patient.—Colored, farmer, male, aged 25.

Chief Complaint.—Pain and swelling in knee with inability to walk.

History of Present Complaint.—While riding a mule the day before admission was run into by an automobile which caused him to be thrown from the mule, falling on his left leg. There was immediate acute pain and he was unable to get up and stand on leg.

Past History.—Not revalent.

Physical Examination.—Rather thin, poorly developed negro male, carried into examining room as he is unable to walk. General examination essentially negative. The left knee, of which he complains, is swollen, contains fluid, and there is evidence of destruction of the surfaces of the patella with upward displacement due to pull of rectus femoris muscle. There are multiple abrasions in the vicinity of the joint with evidence of infection of the skin.

Wassermann, Kline and Young, and Kahn tests were negative. Urine not remarkable.

Roentgenograms showed comminuted fracture of patella.

Procedure.—With the presence of a local skin infection it was thought advisable to clear this up and to let some of the local inflammatory reaction subside before opening the joint and securing the patella fragments by suture.

After six days of hot lead acetate dressings the local infection appeared to be controlled and the acute inflammatory secondary to the traumatic shock was decidedly better. Tetanus antitoxin, 1500 units was administered on day of admission. Under spinal anaesthesia a flap incision designed so as to give a wide exposure was made. There was an escape of hemorrhagic fluid and blood clots. The medial and lateral ligaments showed evidence of forceful rupture. Their ragged ends were easily identified. The patella was crushed and the fragments scattered over the face of the joint surface in pieces from the size of a shot to three large fragments. The smaller pieces were free but the larger ones were still attached to then tendon of the rectus femoris above and to the patella tendon inferiorly. These were approximated by use of soft iron wire which loaned itself admirably as the mattress suture material to hold the pieces together. The bone was first drilled and the wire pulled through the hole. A good fixation was accomplished. The lacerated ligaments were sutured with cat gut and the knee joint closed with two small drains at the upper angle of the wound on each side. A plaster cast was applied to inhibit motion and to prevent strain on any of the sutures.

In 24 hours a window was cut in the cast to observe the wound and to take care of drainage. The drainage was never purulent and only sanguinous joint fluid. After seven weeks the cast

was removed and the patient coaxed to get up on crutches and he was surprised to find that he could control the injured knee and bear more weight upon it than upon the normal one. The stiffness and pain in the normal knee was due to lack of use for so long a time. The patient was discharged on the fifty-ninth day after the accident with a good result—control of the leg in extension and a painless joint.

Comment.—Causes of fracture of patella:
(1) Direct injury as fall on a flexed knee;
(2) muscular contraction by action of quadriceps femoris when knee is partly flexed.

The fracture may be longitudinal, oblique, or communicated. The commonest type is the transverse at the middle of the patella. This is due mostly to muscular contraction. The comminuted form is usually due to a direct blow. Periosteum and the fascial planes are likewise injured.

The diagnosis is made on the symptom of acute pain in the knee and inability to pick up and extend the leg or to lift it.

The signs are swelling, effusion into joint, crepitation of fragments and the palpation of fracture margins.

The Prognosis.—Those without displacement do not need surgery though the results obtained are not as good as those in which open reduction is done. In 30 cases reported in the literature, 24 treated openly showed good results in 86 per cent; 6 treated by the closed method showed good results in 66 per cent. The poor results were due to fibrous unions in the unopened cases.

Obviously, the best prognosis is obtained by open reduction and the sooner this is done the better the result. Eighty per cent of all fractures of the patella are treated by the open method. Closed reduction is accomplished by fixing the fragments after manipulating them into place, by adhesive strips and then placing the leg in extension with a heavily padded splint placed posteriorly to hold the leg in complete extension. In the open method only Kangaroo tendon is used by many surgeons as it is held by some that iron wire may result in a foreign body.

KING'S DAUGHTERS' HOSPITAL, GREENVILLE, MISS.

Staff Meeting, December 9, 1931.

Abstract: Primary Sarcoma of the Lung.

Mrs. E. L. A., a well-developed white woman, aged 56, housewife, entered the King's Daughters' Hospital, May 16, 1931. She complained of spells of coughing in which she would almost lose her breath, a marked loss of weight, a feeling of fatigue, night sweats and a hacking cough that had been present for six or eight months.

Her temperature on admission was 99.5° F. and varied from 98° F. to 102° F. during the forty-five days in hospital. Her blood showed 80 per cent hemoglobin, 4,590,000 R. B. C. and 22,000 W. B. C., with 86 per cent polynuclear

neutrophils. The blood Wassermann was negative; the urine was not noteworthy. The sputum was negative for acid-fast bacilli and blastomycetes. Blood urea nitrogen was 20 mg. per 100 c.c. Her white blood count gradually increased to 30,000 per cu. mm., with polynuclear cells varying from 86 per cent to 89 per cent.

Röntgen ray examination of her chest showed a large circumscribed shadow in the middle of the right chest extending from the mediastinum to the costal border and from the third to the right rib. A lateral view showed the shadow extending from the posterior to the anterior wall of the chest.

A probable diagnosis of lung abscess was made and a thorocotomy was done on May 19, 1931. Some small bits of tissue received by aspiration were examined but showed only necrotic tissue and cultures were negative. On June 25, a piece of tissue growing from the lung out into the thorocotomy wound was removed for examination. From this examination the diagnosis of fibro-sarcoma was made.

The patient was discharged from the hospital July 1, 1931, unimproved, and only July 10 she died.

Primary sarcoma of the lung is a rare malady. Adler was able to select only 90 cases from the literature and many of these did not present sufficient evidence to justify their classification as sarcoma. Ball in a review of the German, French and English literature since 1900, only finds 14 cases reported.

Pulmonary sarcoma may be of two types: a diffuse spindle cell or fibro-sarcoma and a round cell sarcoma. Fibro-sarcoma is seen more often in older people while a round-cell sarcoma is more common in young people. Fibro-sarcoma usually progresses slowly while round-cell sarcoma shows a rapid progress with an early fatal termination.

F. M. Acree.

GEORGE C. HIXON MEMORIAL HOSPITAL, ELECTRIC MILLS, MISSISSIPPI.

Staff Meeting December 7, 1931.

The Regular monthly meeting of the Geo. C. Hixon Memorial Hospital staff of Electric Mills, Miss., was called to order by Dr. A. M. McCarthy, Surgeon-in-charge. The secretary's hospital report for month of November was read and accepted. Previous to the regular meeting Dr. McCarthy gave a brief synopsis of his visit to the meeting of the Southern Medical Association in New Orleans.

The scientific program for the evening was a case report given by Dr. J. L. Hasie: Bronchial Spirochetosis.

Patient.—A negro male, unmarried, section laborer, aged 25 years, admitted to the hospital December 19, 1931, 3:00 P. M.

Chief Complaint.—Pain in right side of chest, productive cough, loss of weight, night sweats, and fever of six weeks duration.

History.—On October 29, 1931, while patient was at work he was seized with a severe chill followed by high fever and pain in chest which was intensified by deep breathing. He went to bed and remained there until November 1, when he attempted to return to work, but was unable to do so. At this time he noticed that pain had localized in his left chest and that he had developed a severe cough, productive in nature with blood-tinged sputum. The pain in the chest radiated to the lumbar region and patient stated that his back hurt worse when he coughed. Fever at this time was noted as rising in the afternoon and going down at midnight. These symptoms continued until admission to hospital, and were accompanied by loss of ten pounds and night sweats.

Physical Examination.—A well developed and nourished negro male, aged 25 years, lying quietly in bed, apparently acutely ill. Temperature 103° F.; pulse 110; respiration 34. Blood pressure 140/80. Skin hot and moist, eyes reacted sluggishly to light and accommodation, examination of nose, ears, accessory sinuses, mouth, and throat revealed nothing abnormal. Chest contour normal with exception of a slight tendency toward a barrel chest. There was moderate limitation of expansion of entire left chest, but no lagging. Percussion revealed many small scattered areas of consolidation over both lobes of left lung. Vocal and tactile fremitus were greater on the left than on the right. Auscultation revealed many scattered areas of tubular breathing and many coarse and fine rales over entire left chest. A few scattered coarse and fine rales were noted over right chest, but no evidence of consolidation could be found. Heart: sounds were normal. Abdomen: Revealed nothing unusual. Back: There was tenderness to pressure over the second and third lumbar spines. Extremities: Appeared normal. November 6—Areas of consolidation seemed to be less easily made out, and tubular breathing was diminished. Temperature 101° F.; pulse 100; respiration 28. November 11: Cough still productive in nature, pain still marked in left chest, a few fine rales noted over left lung. Temperature, pulse and respiration are normal. This condition remained unchanged until after admission to the hospital on December 19, 1931.

Laboratory Findings on Admission.—Leukocytes 8,000; neutrophils 64 per cent, small lymphocytes 23 per cent. Urinalysis negative. Wassermann reaction strongly positive. Sputum examination revealed many spirochetes which were identified as *Spirochaetae* bronchialis; negative for tubercle bacilli.

Clinical Course.—The most marked symptoms were a severe hacking cough, almost paroxysmal in character, with profuse blood tinged sputum, and pain in lumbar region. Physical examination revealed nothing except a few fine musical rales about apex on deep inspiration. A roentgenogram

was taken which showed diffuse mottling of both lungs, most marked on the left side about the hilum and bronchial tree. With these findings prior to the laboratory examination, a preliminary diagnosis of diffuse tuberculosis of the fibrous type was made. With the findings of spirochetes in the sputum on repeated examination, plus the absence of tubercle bacilli, a diagnosis of pulmonary spirochetosis was made. The positive Wassermann made us suspicious of syphilis of the lung, but the continual presence of spirochetes, and the absence of physical findings ruled this out.

Treatment.—Nearsphenamine, 0.3 gm., was given intravenously, and the improvement was immediate. The dosage was increased to 0.6 gm. given at 5-day intervals, and two injections given prior to the discharge of the patient apparently cured, on December 30, 1931. Treatment will be continued. At the time of discharge the sputum was free of spirochetes.

Discussion by Dr. J. L. Hasie.—To me this case is of especial interest because of the rarity of the condition, the acute onset which we diagnosed as broncho-pneumonia, followed by the almost typical and roentgen ray finding of tuberculosis. The differential diagnosis was not difficult after the repeated finding of spirochetes bronchialis in the sputum.

Syphilis and tuberculosis have already been ably discussed by Drs. McCarthy and Baldree.

The possibility of the spirochetes coming from the gums or teeth was eliminated by carefully washing the mouth before obtaining each specimen.

This condition was first described by Castellani in 1905, and he describes it as follows: It is most common in the tropics, and is classified as acute, subacute, and chronic. In the acute form it resembles acute bronchitis with an acute onset, characterized by high fever, pain in the chest, severe cough with scanty blood-tinged sputum, and many organisms in the sputum. If the parenchyma of the lung is involved there may be areas of dullness and all kinds of rales. The subacute form resembles the chronic. The chronic form usually follows an acute attack or may come on gradually. There may be fever, sputum is somewhat scanty, and blood tinged, hemoptysis may occur, there may be areas of consolidation, and all kinds of rales as in the acute type. Spirochetes in large numbers are found in the sputum. The mouth should be cleansed thoroughly to avoid the presence of mouth spirochetes. The prognosis is usually good, but the course may be very chronic. The condition may be regarded as tuberculosis, but careful study of the sputum should correct the error.

Nearsphenamine or Fowler's solution is the standard treatment. The most remarkable thing about this case is the prompt response to treatment, with immediate cessation of all symptoms.

TRANSACTIONS OF ORLEANS PARISH MEDICAL SOCIETY

CALENDAR.

- February 1—Eye, Ear, Nose and Throat Hospital Staff, 8 P. M.
 February 5—Pathological Conference, Hotel Dieu, 11 A. M. to 12 Noon.
 February 5—Physiology Seminar, Tulane Medical School, 5 P. M.
 February 10—Touro Infirmary Staff, 8 P. M.
 February 11—French Hospital Staff, 8 P. M.
 February 12—Pathological Conference, Hotel Dieu, 11 A. M. to 12 Noon.
 February 12—Physiology Seminar, Tulane Medical School, 5 P. M.
 February 12—New Orleans Gynecological and Obstetrical Society, 8 P. M., Touro Infirmary.
 February 15—Hotel Dieu Staff, 8 P. M.
 February 16—Charity Hospital, Medical Section, 8 P. M.
 February 17—Charity Hospital, Surgical Section, 8 P. M.
 February 18—Eye, Ear, Nose and Throat Club, 8 P. M.
 February 19—Pathological Conference, Hotel Dieu, 11 A. M. to 12 Noon.
 February 19—I. C. R. R. Hospital Staff, 12 Noon.
 February 19—Physiology Seminar, Tulane Medical School, 5 P. M.
 February 19—Mercy Hospital Staff, 8 P. M.
 February 22—ORLEANS PARISH MEDICAL SOCIETY, 8 P. M.
 February 23—Baptist Hospital Staff, 8 P. M.
 February 26—Pathological Conference, Hotel Dieu, 11 A. M. to 12 Noon.
 February 26—Physiology Seminar, Tulane Medical School, 5 P. M.

During the month of January besides the regular meeting of the Board of Directors, the Society held its annual Installation Meeting and one regular scientific meeting.

At the Installation meeting the retiring President, Dr. Emmett Irwin, presented his report. The Inaugural Address of the President, Dr. John A. Lanford, was then read. Rabbi Louis Binstock, the Annual Orator, gave a most interesting address on, "What is it to be Educated?"

The following officers were installed:

President—Dr. John A. Lanford.

First Vice-President—Dr. Edward L. King.

Second Vice-President—Dr. Waldemar R. Metz.

Third Vice-President—Dr. Daniel N. Silverman.

Secretary—Dr. H. Theodore Simon.

Treasurer—Dr. Frederick L. Fenno.

Librarian—Dr. Alton Ochsner.

Additional Members—Board of Directors.

Dr. H. B. Alsobrook, Dr. Emmett Irwin, Dr. Walter E. Levy.

Following the meeting there was dancing and refreshments were served. The arrangements for this meeting were in charge of the Woman's Auxiliary. There was a very good attendance.

At the meeting held January 25 the annual reports of the Officers and various special and standing committees were read.

Two scientific papers were read and discussed as follows:

Sedimentation rate of Erythrocytes. Brief History and Discussion of Theories. Application in Gynecology.

By: Dr. Adolph Jacobs. Discussed by Dr. Leopold Mitchell.

Goiter: A Brief History of its Surgery and a Review of One Hundred and Twenty-eight Operated Cases in a Non-goiter District.

By: Dr. Howard R. Mahorner. Discussed by Dr. Alton Ochsner.

The following applications for membership are posted:

Active Membership: Drs. W. T. Browne and W. R. Hardy.

Interne Membership: Drs. N. J. Bender and L. S. Charbonnet, Jr.

TREASURER'S REPORT.

Actual Book Balance Nov. 30, 1931.....	\$ 342.78
December receipts	1,854.66
Insurance received	2,266.57
	\$4,464.01
Expenditures	886.64

ACTUAL BOOK BALANCE:

December 31, 1931.....	\$3,577.37
------------------------	------------

LIBRARIAN'S REPORT.

Twenty-six books have been added to the Library during December. Of these 14 were received from the New Orleans Medical and Surgical Journal and 12 by gift. A notation of new titles of recent date is given below.

The Library has had constant visitors during the month, first from the Association of Deans of Medical Colleges, and more recently the members of the American Association for the Advancement of Science.

New Books.

Bell—Some Aspects of the Cancer Problem. 1930.

Scheffel—Medical Jurisprudence. 1931.

Hertzler—Surgical Pathology of Diseases of Bone. 1931.

Stevens—Textbook of Medicine for Nurses. 1931.

Stevens—Practice of Medicine. 1931.
 White—Medical Psychology. 1931.
 Fuller—Synopsis of the U. S. Pharmacopoeia. 1931.
 White House Conference—Health Protection for the Pre-School Child. 1931.
 Reed—Health for Travelers. 1931.
 LeRoy—Paralyse generale et malariatherapie. 1931.
 Piney—Recent Advances in Hematology. 1931.

Beardwood—Simplified Diabetic Management. 1931.
 Andrews—How's Your Blood Pressure. 1931.
 Dobson—Dynamic Retinoscopy. 1931.
 New York—Hospital Department. Report. 1930.
 Dinwiddie—Child Health and the Community. 1931.
 American Association of Medical Milk Commissioners. Proceedings. 1931.

H. Theodore Simon, M. D.
 Secretary.

Medical and Surgical Problems Associated with Coronary Sclerosis.—The pain observed following acute occlusion of a coronary vessel certainly appears to have a definite pathologic basis. The major difference between this pain and that which is unassociated with coronary occlusion is probably one of degree only. Atheroma of the coronary arteries is the common lesion found in cases of coronary sclerosis, and the pain is considered to be the result of anoxemia due to a blood supply "suddenly insufficient for the needs of the heart muscle for the moment." In certain cases of angina pectoris, sufficient changes in the coronary vessels to account for inadequate blood supply are lacking, and a paroxysmal vasomotor spasm has been postulated to explain these cases. The demonstration by Anrep and Segall that there is vasomotor control of the coronary circulation in the dog might be regarded as supporting the conception of such a mechanism of production of pain. However, the explanation of anginal pain on the basis of paroxysmal vasomotor spasm is at present devoid of any reliable clinical or experimental proof.

Angina pectoris is sometimes observed in cases of pernicious anemia, hyperthyroidism, and paroxysmal tachycardia. There are evidences that in many of these cases the coronary vessels are not the seat of notable disease. It seems highly probable that the factor productive of pain, common to all these mechanisms, is a coronary circulation that is inadequate in the amount of oxygen furnished to the cardiac muscle. It is important to note that angina pectoris arising from any of these conditions is usually overcome by correction of the underlying disturbance. Consequently, the prognosis of angina pectoris, when it arises from these causes, is much better than when the condition has its origin in coronary sclerosis. . . .

The most important step in distinguishing acute conditions in the abdomen from acute coronary obstruction, is the careful taking of the anamnesis. This is particularly true if patients have cholelithiasis or peptic ulcer; in such cases a painstaking review of the history usually will suffice to establish the presence of these conditions. If one remembers that cardiac arrhythmia, muffled apical

heart tone, gallop rhythm, friction rub and particularly a rapid drop in blood pressure are symptoms of cardiac insult, the differential diagnosis usually can be made. Willis and Fitzpatrick found that the gall bladder was diseased in twenty-four per cent of cases of coronary sclerosis. When disease of the gallbladder or peptic ulcer exists with acute coronary obstruction, it may be difficult or impossible to arrive at a differential diagnosis. . . .

In distinguishing acute coronary obstruction, from acute pancreatitis and intestinal obstruction, the electrocardiogram may be of diagnostic value if twenty-four or more hours have elapsed after the onset of the attack. The fecal vomiting, "ladder pattern" seen on inspection of the abdomen, and abdominal rigidity will establish the diagnosis of intestinal obstruction as a rule. As between acute pancreatitis and coronary disease the diagnosis must rest on the occurrence of local tenderness and rigidity in pancreatitis, the history relative to coronary disease, the physical signs of cardiac injury, and possibly on the electrocardiographic changes.

Finally, the surgeon is interested in the problem of the surgical treatment of angina pectoris. Here a plea for conservatism must be made. First of all, operations undertaken on patients with angina pectoris are done at considerable risk. Second, if the surgeon is successful in alleviating pain there is no reliable evidence to indicate that he has modified the serious pathologic process that is the basis for the pain. It is even debatable how much one is justified in depriving the patient of the signal which will warn him that his heart is in distress. At present we are inclined to reserve attempts at surgical relief of patients who fail to obtain reasonable help from the combined use of xanthine derivatives and adherence to a strict regimen. If this treatment fails, the surgical procedure of choice is the conservative method, consisting of paravertebral injection with alcohol of the upper five thoracic nerves.

REFERENCES:

Barnes, Arlie R.: Medical and surgical problems associated with coronary sclerosis. *Ann. Int. Med.*, 5: 873-885, 1932.

LOUISIANA STATE MEDICAL SOCIETY NEWS

H. Theodore Simon, M. D., Associate Editor.

PRESIDENT'S PAGE

DO WE WANT IT?

In 1884, Bismark took a leap in the dark and brought to birth in Germany, a system, the evolution of which is Germany's present scheme of State or Socialistic Medicine, an intolerable scheme both to doctor and patient, as well as a deterrent to scientific medical development.

Bismark was a statesman, but unfortunately a political opportunist as well. Expediency was his God: towards mankind he felt no profound obligation. The people were and remained in his eyes purely a thing to be governed. His statesmanship, it is recorded, cautioned against his blind leap, but his political philosophy—"No one does anything for his neighbor unless he finds it to his own interest," urged.

Germany had become a great industrial state, and the growth of socialistic and radical doctrines among their rank, filled Bismark with concern. His political reasoning saw in their unrest and rancor, the acquisition of further power and public popularity by their appeasement, which at that stage of his career he found himself in sore need. Thus was born the first state guaranteed insurance against sickness, old age, accidents and every other affliction known to man.

While his plan for a Great Imperial Insurance Department, covering all the ills of the workman, failed, the seed fell in fertile soil and after nearly fifty years, it has evolved into the present medical status in Germany, a full blooded socialistic state medicine, for there can be no state medicine without socialism.

As we study the life history of Bismark, the author, father and founder of state medicine, and note the influences surrounding him, how striking is the similarity of his environment, politically, and his line of reasoning, to those among us today, entrusted with leadership and the direction of public opinion.

However, it can be said in his justification, when he took his great leap in the dark, it was truly in darkness, for he had no precedent to guide him, no unfortunate people ahead of him, or at his time, had played with the fire with which he was playing. Yet in this enlightened age and in this enlightened country of ours, with all the light of history at hand, we find leaping into the dark, men into whose hands we have placed the destiny of our country and her great institutions.

Upon the shoulders of some must rest the responsibility of stemming or directing the tide; upon the shoulders of all of us rests the responsibility of doing our part in establishing reason, sanity and patriotic programs.

The evils which now beset on all sides, the people of the whole world, as well as those of us in this Country, are admittedly due to the game of politics, directly or indirectly. It was not politics, but the game of politics, which Bismark was playing, when, in seeking to gain the good will of the working classes of Germany, he proposed his scheme of socialistic medicine.

It is certainly not the science of politics, but the game of politics which we find our Congress, Legislators, Parish and Municipal governing bodies playing, when they heedlessly provide with public funds, free medical service for people who are in no sense indigent.

Only pigmy minds can argue the justness of such schemes, or that they have any justification or place in any plan of government other than a purely socialistic one. No one believes that such policies would ever have the backing of our Congress, our Legislature, or our Municipal and Parish officials, unless there were political fences to be strengthened.

There are none among us who believe other than it is the Government's duty to provide for her indigent sick through our Congress, Legislature, Parish and Municipal authorities, and there are none among us who believe that in our form of government, it is conducive to good citizenship, or fair to our whole citizenship, to provide for those who are not indigent.

This question is simply brought forward as an illustration of the practices which the professional politician will follow in an effort to gain political prestige, regardless of the far reaching and baneful effects.

Bismark could only imagine: we cannot believe his imagination pictured the result. We today do not have to use our imagination, we can see with a clear vision, the end.

This tendency existing among our governing bodies from Washington to our City Hall, is the result purely of politics and the agitation of uplifters, reformers and sentimentalists. If allowed to go unopposed, unchallenged, the conditions existing in Germany and among other European countries, will necessarily follow.

The business of the practice of medicine is the business of the medical profession and it, and it only, knows how it should be run. The leadership in medical matters of whatever nature, must be assumed and taken over by the profession.

Every local Medical Society must have machinery by which the truth can be carried to the public in a convincing manner. Our State Society should and must have a public information

bureau, a department from which there should flow regularly and systematically, information which will direct and form public opinion in line with truth.

As a first step in this direction, I make an appeal to each component Society in the State to at once organize a committee whose function it will be, to mix into the "goings on" of your community, and direct diplomatically, those activities touching on medical interests. An occasional public meeting where fundamentals pertaining to organized medicine, may in a dignified way, be gotten to the public; regular contributions to your local papers on medical matters and other such activities would be in order and proper.

In Germany today, the doctor is paid by the government, twenty five cents for an office consultation, fifty cents for a house call, and is subject to investigation as to whether all of his calls were necessary. Other fees are in proportion. The wage earner is taxed a certain per cent of his wage which goes into a fund, and the army of government employees to dispense this fund is larger than the number of doctors to which it is dispensed.

The government controls the doctor and controls the patient. The patient cannot have a doctor without the consent of the government, and the doctor can have no patients unless he is an employee of the government.

This is their system. Do we want it?

S. C. Barrow, Pres.

Louisiana State Medical Society.

1932 PARISH OFFICERS.

The following Parish Medical Societies have elected officers for 1932:

Caddo Parish (Shreveport): President, Dr. B. C. Garrett; Secretary, Dr. Wm. B. Heidorn; Treasurer, Dr. J. E. Knighton, Jr.; all of Shreveport.

East Baton Rouge Parish: President, Dr. Rufus Jackson; Vice-President, Dr. T. C. Foreman; Secretary-Treasurer, Dr. W. H. Pipes; Delegates, Dr. R. G. McMahon, Dr. H. W. A. Lee, Dr. Rufus Jackson; all of Baton Rouge.

Morehouse Parish: President, Dr. E. L. Miller, Bonita; Vice-President, Dr. J. N. Jones, Bastrop; Secretary-Treasurer, Dr. L. E. Larche, Bastrop; Delegate, Dr. W. A. Rogers, Bastrop; Dr. R. B. Leavell, Bastrop.

Rapides Parish: President, Dr. L. D. Gremillion; First Vice-President, Dr. S. J. Phillips; Second Vice-President, Dr. E. R. Gandy, Alexandria; Secretary-Treasurer, Dr. D. B. Barber, Alexandria; Board of Censors, Dr. J. T. Cappel, Dr. R. B. Wallace, Dr. J. A. White; Delegates, Dr. E. DeNux, Dr. King Rand, Dr. D. C. McBride; Alternates, Dr. J. A. Packer, Dr. J. T. Cappel, Dr. H. A. White; all of Alexandria.

Vernon Parish: President, Dr. W. E. Reid; Vice-President, Dr. W. W. Talbot; Secretary-Treasurer, Dr. D. O. Willis; Delegate, Dr. D. O. Willis; Alternate, Dr. F. P. Jones; all of Leesville.

Washington Parish: President, Dr. H. V. Jones, Bogalusa; Vice-President, Dr. L. L. Lancaster, Bogalusa; Secretary-Treasurer, Dr. F. A. Williams, Franklinton; Delegate, Dr. H. V. Jones, Bogalusa.

HEALTH OF NEW ORLEANS.

The Division of Vital Statistics of the Department of Commerce has issued the following reports on the health of New Orleans. For the week ending December 19, there were 148 deaths, giving a death rate of 16.5. Ninety-one of these deaths were among the white population and 57 in the colored, a death rate for the former of 14.3 and for the latter 22.1. The infant mortality rate during this week was 73. For the following week ending December 26 there was a slight decrease in the number of deaths in the City. Ninety white persons and 47 colored individuals died during this week, giving a death rate of 15.3 for all deaths, 14.1 for the white and 18.2 for colored. The infant mortality rate was very low, being 45. The week ending January 2 was not quit as healthy in the city as 146 patients did, making a death rate of 16.3. The increase in deaths was practically entirely among the colored population, who had a rate of 28.3 as a result of 73 deaths, whereas the white death rate was only 11.4. During this week there were 12 deaths in children under one year of age, giving an infant mortality rate of 67. The report for the week ending January 9, 1932, shows a still further increase in the number of deaths in the City, there being 157, 93 of whom were white people, 64 colored, giving a death rate for the total of 17.3, for the white 14.4, and for the colored 24.4.

INFECTIOUS DISEASES IN LOUISIANA.

Dr. J. A. O'Hara of the State Board of Health, in collaboration with the United States Public Health Service, has issued for the past four weeks the following weekly morbidity reports, which are briefly abstracted below. For the week ending December 19, the most frequent diseases reported in Louisiana were as follows: sixty-nine cases of syphilis, 46 of tuberculosis, 44 of diphtheria, 40 of gonorrhea, 37 of pneumonia, 26 of scarlet fever, and 19 of typhoid fever. During this same week there was reported one case of smallpox and one of undulant fever. The typhoid fever rate showed a marked decrease over the previous week. Unfortunately, this decrease was temporary, as the week ending December 26, 39 cases of typhoid fever were re-

ported, exceeded only by the 42 cases of cancer among the reportable diseases. In addition to these two diseases, there were reported 35 cases of pneumonia, 33 of diphtheria, 20 of syphilis, and 25 of tuberculosis. One case of epidemic meningitis was reported. For the week ending January 2 the reportable diseases as a whole had markedly decreased. Thirty-four cases of diphtheria, 50 of whooping cough, 27 of gonorrhea, pneumonia, and 15 of syphilis. Measles was reported for the first time in numbers exceeding 10 for some period of time. Of the rarer diseases one case of poliomyelitis was reported, 4 of leprosy, 2 of smallpox, and one of undulant fever. The week ending January 9 saw the following diseases reported together with their number: forty-six of pulmonary tuberculosis, 25 of syphilis, 50 of whooping cough, 27 of gonorrhea, 25 of influenza (as contrasted with 138 cases the corresponding week of last year), 14 of scarlet fever, 17 of typhoid fever. Seven cases of smallpox were also reported, and one of leprosy.

NEWS ITEM.

Dr. Isidore Cohn, Professor of Clinical Surgery with the Graduate School of Medicine of the Tulane University of Louisiana, attended a meeting of the Fracture Committee of the American College of Surgeons held at Chicago, Ill., January 8-9, 1932.

THE AMERICAN COLLEGE OF PHYSICIANS.

The annual meeting of the American College of Physicians will be held in San Francisco, California, the week beginning April 4, 1932. A series of clinics and a group of papers will be presented at this meeting. It will be impossible to enumerate all of the distinguished authors who will present papers at this meeting. A few might be mentioned from the many: Doctors Thomas Addis, Walter C. Alvarez, J. M. Blackford, Arthur L. Bloomfield, B. J. Clawson, Arthur D. Dunn, George Dock, George B. Eusterman, Chauncey D. Leake, Hans Lissner, Jonathan C. Meakins, James H. Means, LeRoy S. Peters, Russell Wilder. Particularly interesting will be the symposium on the autonomic nervous system, in which the following speakers will take part: Doctors S. W. Ranson, Walter B. Cannon, Harry L. Alexander, Hilding Berglund, A. J. Carlson, Alfred W. Adson.

THE MID-SOUTH POST GRADUATE ASSEMBLY.

The Mid-South Post Graduate Assembly, which is the new title for the old Tri-States Medical Association of Mississippi, Arkansas, and Tennessee, will meet in Memphis, February 9-12, 1932. A large and comprehensive program has been arranged for this meeting, and numerous

speakers will be imported to give their expositions on subjects of which they are well qualified to speak. The lecturers include such men as Drs. Chevalier Jackson, Philadelphia; Martin Fischer, Cincinnati; John Erdman, New York; Charles Scudder, Boston; Irvin Abel, Louisville; Ralph Pemberton, Philadelphia; Paul White, Boston; J. C. Litzenberg, Minneapolis; H. R. M. Landis, Philadelphia; Wilburt Davison, Durham, N. C.; Kenneth Lynch, Charleston; Charles Elliott, Chicago; F. T. Lord, Boston, beside many other well known men. Dr. Morris Fishbein, Editor of the Journal of the American Medical Association will deliver the annual address at the banquet to be given during the course of the meeting. The annual address of the President, Dr. A. G. Payne, Greenville, Mississippi, will precede Dr. Fishbein's postprandial address.

The old Tri-States Medical Association had for several years a very large attendance. With the broadening of the scope of this organization and the widening of its membership field, there can not be very much doubt that the new organization will make an excellent record for itself, particularly as the energetic and dynamic Dr. A. S. Cooper of Memphis as Secretary-Treasurer remains as the guiding hand of the organization.

THIRD INTERNATIONAL CONGRESS OF SANITARY TECHNICS AND URBAN HYGIENE.

The Third International Congress of Sanitary Technics and Urban Hygiene will be held at Lyons, March 6-9, 1932. Various problems in transport hygiene, habitation hygiene, hospital constructions, atmospheric problems and so on will be discussed.

WOMAN'S AUXILIARY NOTES.

On account of lack of space, the names of the officers of the Woman's Auxiliary to the Louisiana State Medical Society have not hitherto been published, and we take this opportunity of redeeming this omission.

President—Mrs. H. W. E. Walther, New Orleans.

President-Elect—Mrs. R. T. Lucas, Shreveport.

Vice-Presidents—Mrs. Roy Harrison, New Orleans; Mrs. C. R. Gowen, Shreveport; Mrs. L. T. Baker, Shreveport, and Mrs. Claude Baker, Minden.

Recording Secretary—Mrs. T. E. Watkins, Lake Charles.

Corresponding Secretary—Mrs. F. M. Johns, New Orleans.

Treasurer—Mrs. W. R. Buffington, New Orleans.

Chairmen:

Press and Publicity—Mrs. John H. Musser, New Orleans.

Organization—Mrs. A. A. Herold, Shreveport.

Revision—Mrs. W. S. Kerlin, Shreveport.

Hygeia—Mrs. E. S. Hatch, New Orleans.

Legislation—Mrs. J. P. Brown, Monroe.

Public Relation—Mrs. I. I. Lemann, New Orleans.

Finance—Mrs. S. Chaille Jamison, New Orleans.

Historian—Mrs. H. B. Gessner, New Orleans.

Program on Education—Mrs. Stanley Scott, Lake Charles.

Councilors:

1st District—Mrs. H. E. Bernadas, New Orleans.

2nd District—Mrs. A. L. Levin, New Orleans.

3rd District—Mrs. P. A. Boykin, Jeanerette.

4th District—Mrs. R. G. Douglas, Shreveport.

5th District—Mrs. C. P. Gray, Monroe.

6th District—Mrs. E. M. Levert, St. Francisville.

7th District—Mrs. Olin W. Moss, Lake Charles.

8th District—Mrs. D. C. McBride, Alexandria.

Presidents of the Parish Auxiliaries:

Orleans—Mrs. S. M. Blackshear, New Orleans.

Caddo—Mrs. J. L. Scales, Shreveport.

Ouachita—Mrs. J. B. Vaughan, Monroe.

Calcasieu—Mrs. Geo. Kreeger, Lake Charles.

Webster—Mrs. J. B. Benton, Minden.

Morehouse—Mrs. R. B. Leavell, Bastrop.

The January meeting of the Woman's Auxiliary to the Orleans Parish Medical Society was held on the usual second Wednesday of the month, and it marked a reversal of policy for the organization has attained a growth that rendered it almost impossible to hold their meetings in the homes of their members, so it was deemed wise to change to The Orleans Club which has been secured for the rest of the year and the one to come. The debut at the Club was celebrated by a most interesting meeting given in honor of the mothers of our doctors, and judging by the attendance the idea of the President was a happy and appropriate one.

Dr. John Musser gave a talk on food, which was concise and interesting, giving us much food for thought. The Philanthropic Committee reported the disposal of 110 garments to different sources. One of our members, Mrs. Henry Ader, accompanied by Mrs. Gabriella Lavedan, gave us delightful vocal selection and gained our very sincere plaudits. Miss Marie DeGravelle presented some excellent piano solos which were enjoyed by all. After having been feasted in mind and ear we all joined together and had the always refreshing social hour.

The following is a condensed version of a most interesting, instructive, and worth while message from our National President, Mrs. Arthur B. McGlothlan. She strongly advises an Advisory Council of doctors for each and every

Parish Auxiliary, and desires that to be one of the goals for this year; that we should strive always to retain our members and keep all names classified from the beginning, so when some are lost in devious ways we will be able to check up. She suggests the card filing system to obtain this end. Of course many of our newly organized auxiliaries are stressing the social side and of course very rightly, for until we are unified we cannot even attempt any more serious work, but after the necessary preliminaries are over most of these organizations are settling down to philanthropic and educational work. She also touches on the press and publicity work, and advises all the chairmen to report their news to the National Chairmen so all auxiliaries will appreciate the splendid work the different ones are doing. Hygeia is again urged to be one of our definite aims as this magazine is published by the American Medical Association to meet the insistent demand of the layman for information concerning the functions and care of the human body. It is deemed wise that this request should be satisfied by authentic information. Mrs. McGlothlan speaks also of the necessity of each state President's attendance at the mid-year board meeting and the annual convention each spring, and suggests that sufficient funds be taken from each treasury for this object. In this short, rather sketchy condensation, I give Mrs. McGlothlan's splendid message to the different State Auxiliaries.

JAMBALYA.

Mrs. Blackshear, President of the Woman's Auxiliary to the Orleans Parish Medical Society, announced at their last meeting that Mrs. Joseph Hume had been appointed General Chairman for the coming American Medical Association meeting, which takes place in New Orleans in May.

New Orleans hopes to have a visit from Mrs. Walter Jackson Freeman in a short time. Mrs. Freeman will come down to see how matters are progressing for the coming American Medical Association meeting in May.

Take this Journal home to your wife so she may get conversant with the workings of the different Auxiliaries throughout her State and others.

Our National President, Mrs. McGlothlan, in September not only addressed the Woman's Auxiliary but also the convention of the Kentucky State Medical Association.

The Virginia Auxiliary is doing a good piece of work for they have adopted for their work

pre-natal and post-natal education, and pre-school examination of children.

Pennsylvania's Public Relations Committee shows that contacts have been made with Parent-Teacher Associations, Mother's Clubs, Women's Study Clubs, Red Cross Organizations, Tuberculosis Societies, Pre-School Clinic, Dental Clinics, and Crippled Children's Homes.

To the Oregon Auxiliary goes the prize for the best slogan, for at their "Stunt Dinner" the following one was suggested "Dictor's Lives Need Doctor's Wives", and also their How Do You Do? is well worth printing.

Some pay their dues when due.
Some when over due,
Some never do,
How do you do?

A very gracious *au revoir* was said or rather given by Mrs. S. E. Collom, Past President of the Woman's Auxiliary to the Southern Medical Association in the presentation of a gavel which she presented to the Woman's Auxiliary of the Louisiana State Medical Society.

A Short History of Medicine.—Works on Medicine intended for popular consumption are often couched in the jubilant terms of victory. Yet there are whole departments in which no progress whatever has been made. We pride ourselves on the advance in knowledge of infectious disease which the germ theory has brought us, and yet we are utterly and completely ignorant of the two things about infectious disease which are the two things most worth knowing on that topic. Firstly, no man has conceived the way in which the parasites of disease first fastened themselves on the animal body, a specific parasite to a specific animal. In other words, we have not the least idea how diseases first begin. Secondly, no man has conceived a reason why diseases, distributed over a wide area and in many bodies, should vary in virulence from time to time, why, for instance a relatively mild condition, such as influenza, should suddenly devastate the world. It is easy to say that human resistance varies, but that is only to restate the problem in terms of which we know nothing. On these high topics of Medicine we know as much and as little as Hippocrates.

Moreover, if we turn to definite diseases, there are many conditions, and those among the most important, of which our ignorance is almost complete. Thus of the very common and painful diseases, muscular rheumatism and rheumatoid arthritis, we know hardly more than Hippocrates and our remedies are but little more effective than his. The common cold-economically the most

AN INSTITUTE ON TUBERCULOSIS.

The Tuberculosis and Public Health Association of Louisiana, in cooperation with the Louisiana State Board of Health, through the courtesy of Dr. J. A. O'Hara, will hold a case finding institute on tuberculosis, on February 17-18. At this institute there will be a demonstration of the technique of tuberculin testing and a careful study of roengen ray plates. Besides formal lectures and demonstrations, there will also be a series of round table discussion. The following out of State men will be present at this institute: Dr. Kendall Emerson, of New York, Managing Director of the National Tuberculosis Association; Dr. William Chas. White, Chairman of the Committee on Research of the National Tuberculosis Association; and Dr. Horton Casparis, of the Department of Pediatrics, Vanderbilt University, School of Medicine. In addition to these men, a half a dozen or more of the New Orleans and Louisiana State physicians interested in tuberculosis, and who have studied the disease from many aspects, have also indicated their interest in this institute sufficiently to present papers and subjects for discussion.

important of all diseases, not excluding cancer and tuberculosis—has a vast literature, but the physician is almost helpless in its presence and can but let it run its course. Measles, whooping-cough, and influenza have become more deadly of late years. We have still no clear line of treatment for them. Nor have we any real insight into the nature of cancer. Those who reach advanced age have no better chance of life than they had two hundred years ago. Above all, it must be remembered that the great majority of deaths are caused by diseases theoretically preventable. There is a natural term of life which it is desirable that all should attain. Yet most of us will surely die a violent death as truly as though struck down by a felon's hand. Death from disease is an unnatural and a violent death.

Faced by facts of this order there are those who constantly urge increased activity in medical "research." But research can only be prosecuted by those who talents specially fit them for the work. With reason it may be and is doubted whether there are many in Western Europe or America who could profitably be employed on medical research who are not already so employed. It is easy to make investigations on a certain level, but those best qualified to judge are of opinion that the general level of medical research has fallen, not risen, of late years. The number of publications has multiplied mayfold, but there are those who doubt if there is much increase in investigation of the first order.

—Charles Singer, 1928.

MISSISSIPPI STATE MEDICAL ASSOCIATION NEWS

L. S. Lippincott, Editor

Jacob S. Ullman, Associate Editor

D. W. Jones, Associate Editor

THAT WE MAY KNOW EACH OTHER BETTER

Dr. John W. D. Dicks was born on January 19, 1874, in Jefferson County, Mississippi. He was reared in the city of Natchez, attending school in Natchez and at Jefferson Military Academy near Natchez. After completing his high school course he entered Leland Stanford Junior University in California, matriculating in the science course with the view of preparing for the study of medicine. In 1895 he matriculated at Tulane University Medical Department, graduating therefrom in the class of 1899.

He was licensed in Mississippi in 1898, and shortly after graduation he began the practice of medicine in Natchez. In 1907, he was elected Surgeon-in-Charge of the Natchez Charity Hospital, a state institution. He remained in charge of this hospital until June, 1916. In 1914 he was elected a Fellow of the American College of Surgeons.

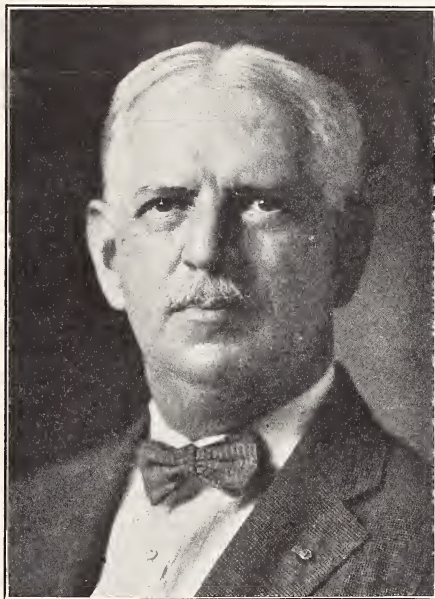
In June, 1916, he was called for active duty in the medical department of the Mississippi National Guard in federal service on the Mexican Border. He served as Major of the Medical Corps and Surgeon of the 155th Infantry from June, 1916, to September, 1917. At this time, the United States being at war with Germany, he was transferred to the 39 Division, U. S. Army, as Assistant Division Surgeon, serving in that capacity until March, 1918, when he was promoted to Lieutenant Colonel, Medical Corps, U. S. Army, and assigned to command the 114th Sanitary Train (Medical Regiment) of the 39th Division. This organization he accompanied to France during the summer of 1918. Shortly after reaching France he was detailed temporarily to organize and command Camp Hospital, No. 70,

a fifteen hundred bed hospital at St. Florent, France. After completion of this tour of duty he returned to his command, which had in the meantime become the 7th Corps Sanitary Train attached to the 7th Corps, a part of the 3rd Army, A. E. F., on duty in Germany. He received an official citation for services rendered during the World War. Returning from army service in the spring of 1919, he resumed practice in Natchez.

He is a fellow of the American College of Surgeons, a fellow of the American Medical Association, a member of the Mississippi State Medical Association, Councilor of the Eighth District, Mississippi State Medical Association, Secretary of the Council, a member of the Southern Medical Association, a member of the Homochitto Valley Medical Society, and a member of the American Association of Railway Surgeons. He is also consulting surgeon for the Yazoo and Mississippi Valley Railroad; local surgeon for the Mississippi Central Railroad, acting assistant surgeon of the

U. S. Public Health Service, field examiner of the U. S. Veterans' Bureau, and president of the staff of the Natchez Sanatorium. He is a Knight Templar of the Masonic Order, a member of the Benevolent and Protective Order of Elks, a Woodman of the World, and a member of Sigma Alpha Epsilon Fraternity.

Dr. Dicks' home is at 217 Linton Avenue and his office at 306 Franklin Street, Natchez.



JOHN W. D. DICKS, M. D.

Natchez, Mississippi

Councilor, Eighth District.

Mississippi State Medical Association.

CALENDAR.

February 1.—Staff of Jackson County Hospital, 2 p. m.; Staff of Meridian Sanitarium, 7:30 p. m.; Staff of South Mississippi Charity Hospital, Laurel, 7 p. m.; Staff of George C. Hixon Memorial Hospital, Electric Mills, 8 p. m.

February 2.—Staff of King's Daughters' Hospital, Brookhaven, 7:30 p. m.

February 3.—Staff of Chamberlain-Rice Hospital, Natchez; Staff of Vicksburg Infirmary, 7 p. m.; Staff of Rush's Infirmary, Meridian 7 p. m.; Staff of Dr. F. G. Riley's Children and Maternity Hospital and Clinic, Meridian, 7 p. m.

February 4.—Pike County Medical Society, McColgan Hotel, McComb, 7 p. m.

February 5.—Natchez Medical Club, 1 p. m.

February 8.—Staff of South Mississippi Charity Hospital, Laurel, 7 p. m.

February 9.—Staff of Natchez Sanatorium, 7 p. m.; Issaquena-Sharkey-Warren Counties Medical Society, Vicksburg, Y. M. C. A., 7 p. m.; Winston County Medical Fraternity, Louisville; Staff of Tupelo Hospital, 7:30 p. m.

February 10.—Staff of King's Daughter's Hospital, Greenville, 7 p. m.; Staff of Vicksburg Sanitarium, 6:30 p. m.; Harrison-Stone-Hancock Medical Society, King's Daughters' Hospital, Gulfport or The Biloxi, Biloxi, 7:30 p. m.

February 11.—Staff of Aberdeen Hospital, 8 p. m.; Staff of Vicksburg Hospital, 6:30 p. m.

February 12.—Staff of Anderson Infirmary, 7 p. m.

February 15.—Staff of South Mississippi Charity Hospital, Laurel, 7 p. m.

February 16.—Staff of Natchez Charity Hospital, 8 p. m.; Central Medical Society, Jackson, 7 p. m.

February 18.—East Mississippi Medical Society, Elks Club, Meridian, 3 p. m.

February 19.—Natchez Medical Club, 1 p. m.

February 22.—Staff of South Mississippi Charity Hospital, Laurel, 7 p. m.

February 29.—Staff of South Mississippi Charity Hospital, Laurel, 7 p. m.

March 1.—Claiborne County Medical Society, Port Gibson, 3 p. m.; Staff of King's Daughters' Hospital, Brookhaven, 7:30 p. m.

March 2.—Staff of Chamberlain-Rice Hospital, Natchez; Staff of Vicksburg Infirmary, 7 p. m.; Staff of Rush's Infirmary, Meridian, 7 p. m.; Staff of Dr. F. G. Riley's Children and Maternity Hospital and Clinic, Meridian, 7 p. m.

March 3.—Pike County Medical Society, McColgan Hotel, McComb, 7:30 p. m.

March 4.—Natchez Medical Club, 1 p. m.

March 7.—Staff of Jackson County Hospital, 7:30 p. m.; Staff of Meridian Sanitarium, 7:30 p. m.; Staff of South Mississippi Charity Hospital, Laurel, 7 p. m.; Staff of George C. Hixon Memorial Hospital, Electric Mills, 8 p. m.

March 8.—Tri-County Medical Society, Copiah-Lincoln Junior College, Wesson; Staff of Natchez Sanatorium, 7 p. m.; Issaquena-Sharkey-Warren Counties Medical Society, Vicksburg, Y. M. C. A., 7 p. m.; Winston County Medical Fraternity, Louisville; Staff of Tupelo Hospital, 7:30 p. m.

March 9.—Staff of King's Daughters' Hospital, Greenville, 7 p. m.; Harrison-Stone-Hancock Medical Society, King's Daughters' Hospital, Gulfport, or The Biloxi, Biloxi, 7:30 p. m.

March 10.—Staff of Aberdeen Hospital, 8 p. m.; Staff of Vicksburg Hospital, 6:30 p. m.; Staff of Vicksburg Sanitarium, 6:30 p. m.

March 11.—Staff of Anderson Infirmary, Meridian, 7 p. m.

March 14.—Staff of South Mississippi Charity Hospital, Laurel, 7 p. m.

March 15.—North East Mississippi Thirteen Counties Medical Society Booneville, 2 p. m.; Natchez Charity Hospital, 8 p. m.; Central Medical Society, Jackson, 7 p. m.

March 16.—Clarksdale and Six Counties Medical Society, 7:30 p. m.

March 18.—Natchez Medical Club, 1 p. m.

March 21.—Staff of South Mississippi Charity Hospital, Laurel, 7 p. m.

March 28.—Staff of South Mississippi Charity Hospital, Laurel, 7 p. m.

STATE ASSOCIATION MEETS

APRIL 12 TO 14.

"Mississippi State Medical Association,
"Office of the President, Oxford, Mississippi,
January 6, 1932.

"Dr. Leon S. Lippincott,
Mississippi Editor,
New Orleans Medical & Surgical Journal,
Vicksburg, Mississippi.

"Dear Dr. Lippincott:

"In reply to your letter of December 29, 1931, I wish to state that several months ago I sent out a letter vote to all of the members of the House of Delegates, asking for a vote on the change in the meeting dates of the State Medical Association. In that letter I suggested that we change the time of the meeting to April 26, 27 and 28, because of a conflict with the American Medical Association. The vote was unanimous for the change. A great many, however, left the dates open, stating that it might be possible that we would have to change it again.

"I later learned that the meeting of the State Teachers' Association, with a delegation of two thousand, will be held in Jackson on April 26, 27 and 28, so I have definitely decided to place the time of our meeting April 12, 13 and 14.

"You will understand that this letter vote was by no means legal but I was merely trying to get an expression from each member of the House of Delegates. I wish at this time through this letter to thank the members for a ninety-five per cent response. In order for our change of the time of meeting to be legal it will be necessary for me to call the members of the House of Delegates and have them to act on same. This meeting will be called on Monday evening, April 11, the

night before our regular annual meeting. In this way the change of date of the meeting will be legalized.

"I will thank you to give this letter a prominent place in your Journal this month."

"Yours very truly,

(Signed) John C. Culley,
President."

TO THE MEMBERS OF THE MEDICAL PROFESSION.

My attention has been called to an editorial which appeared several weeks ago in one of Mississippi's leading newspapers.

The editor of this particular paper has on many occasions used the expression, "Let us stick to the facts," in proving the error of his opponent's contention. In this editorial he failed to stick to the facts so far as figures are concerned and I feel it my duty to call attention to same. My only purpose in answering him now is to give the correct figures and state the true facts in regard to the subject to which he has called our attention. The purpose of his editorial was, in my opinion, well intended. It was timely. It was prompted by a desire, I am sure, to point to the members of our profession where we have been delinquent in performing a duty, which is ours, and ours alone.

The very law which many of us are guilty of not observing is largely of our own making. Mississippi should be proud of the work of the State Board of Health. Especially should we take a pride in the Bureau of Vital Statistics. I doubt if there are many large corporations and few private individuals outside of our State, who, contemplating moving into the State, do not first seek valuable information from the Bureau of Vital Statistics. Foremost of importance is the birth and death rate.

To quote the editorial in question which appeared in the Jackson Daily News:

"Dr. Felix Underwood, state health officer, says there were nearly 9,000 births in Mississippi last year and one-sixth of the number were reported to the bureau of vital statistics from one to twelve months behind time. The same average will hold good on birth statistics for the first ten months of the current year.

"Commenting on this delinquency, Dr. Underwood offers some excellent reasons why all births should be promptly reported. Delays hamper the work of the bureau, belated reports are often filled with errors, and it is impossible to prepare an accurate annual report.

"It is up to papa and mama to poke up the family physician. Perhaps it would be a good idea not to pay the doctor's bill until he has furnished you with a copy of the birth certificate.

"Anyhow, try it out on the physician the next time a baby arrives in your family."

The facts, as shown in Dr. Underwood's report, are that there were 47,982 children born in Mississippi in 1930, and of this number between 8000 and 9000 were registered from one to twelve months late. Midwives deliver about 42 per cent of the babies while physicians deliver 58 per cent. Thus, it will be seen that the physicians are not wholly responsible for the late registrations. I am informed by the Bureau of Vital Statistics that the number of physicians and midwives failing to register births is about equally divided.

It is interesting to note that when the State Board of Health began its work with the midwives and the educational work among the mothers with reference to prenatal care, the midwives were delivering 52 per cent and the physicians 48 per cent. Thus, you see the educational work has been of direct benefit to the physicians, the mothers and the babies.

The editor, I am pleased to note, has a sense of humor and makes the suggestion that papa and mama not pay the doctor's bill until he has furnished them with a copy of the birth certificate. It would be interesting to know just how many of the bills for the above 47,982 deliveries have been paid, regardless of the birth certificates. If I were permitted to answer in the same vein, my suggestion would be for the physician to refuse the birth certificate until the bill was paid. However, that is not the point. There is no defence. We can only plead guilty to the charge of carelessness in a matter that is very vital to every child born in our state.

The fact that Mississippi's record in birth registrations is no worse than that of any other state is no excuse. The remedy is simple. If the registrations in all the other states are as poor as in Mississippi, now is the best time in the world for us to take the lead. We are in the beginning of a new year. Let us resolve right now that we will register every birth and death in 1932. Let us form the habit of doing the "proper thing at the proper time." We are all supplied with the proper blanks. While waiting for the arrival of the baby we have plenty of time to secure all the data necessary for the completion of the certificate with one exception the name of the baby. If the parents cannot decide on a name explain to them that the certificate will not be mailed until the first day of the following month. If they cannot give a name by that time the report is mailed in without one. We have done our duty and any further responsibility is theirs. A good reminder is to circle the first of each month on our office calendar and then have your secretary or office girl to remind us what the circle is for. That is what she is paid to do. Seriously, let us each do our duty toward every helpless infant born in our practice and register its birth promptly and properly, as the law requires.

This is not a complaint against the newspaper or the editor. I have reason to believe that the editor is friendly toward the medical profession. We, as physicians, are indebted to the newspapers of the state for their willingness at all times to give freely of their space for notices of our meetings and all matters pertaining to the public health. The layman never reads medical journals. He depends largely on the newspapers for his information and he usually believes what he reads in them. Thus, the newspaper is a great moulder of public opinion. This particular editor, while professing, and I believe he is sincere, friendship for the profession, frequently takes a back hand slap at us. He likewise uses the pitchfork on the lawyer, the banker, and the politician. But, this particular editorial is calculated to leave the public with the wrong impression.

We should be grateful for the criticism and look upon it as a constructive one. Often times our severest critics are our best friends. Personally, I am thankful for this editorial which calls to our attention a shortcoming which we can so easily correct.

John C. Culley, President.

AMENDMENTS.

"Dear Mr. Editor:

"Noting in the *January Journal* the letter of Dr. Dye regarding sending amendments to the Constitution and By-Laws, I venture to call attention to some he does not mention.

"These were offered the second day of the meeting by Dr. E. H. Jones, to provide for the office of Sergeant-at-Arms, and contemplate changes in Sections 1 and 2 of Article VI of the Constitution, a change in Section 2, Chapter VI of the By-Laws and the addition of a new section to Chapter VII. Querily enough, the amendments to the By-Laws have already been incorporated in the Laws as printed in the *Transactions*, although there is nothing in the minutes to show that any action on them was taken.

"It might also be well to arrange for further consideration of that By-Law quoted in Dr. Dye's letter providing that county secretaries pay no dues. The minutes of the last morning session of the House states that 'The following By-Laws introduced on yesterday by the Secretary were called up and adopted.' There must be a misprint here, for what follows are four amendments, not By-Laws, the second of which makes the provision mentioned. But there is nothing in the minutes of the preceding day to show that they had been introduced, and as such amendments 'must lie on the table for one day,' the question may well be raised whether these four, only three of which were incorporated in the By-Laws, were legally adopted. Therefore, they had better receive further action by the House and it might be well, pending such action, to have the Council

express itself as to what course it will pursue, in the event that one of these non-paying secretaries gets involved in a malpractice suit. Nobody wants to be hypercritical in such matters, but the council is obliged to be pretty 'hard boiled' at times, and frequently refuses an application for defense because of non-compliance with technicalities. We give it a rather free hand in such matters and its actions have justified the confidence we repose in it, so an expression of its opinion on this question, to settle the membership status of twenty of our most active members, would certainly be in order."

(Signed) E. F. Howard.

OUR CHARITY HOSPITALS.

There are in Mississippi five charity hospitals receiving their maintenance wholly or in part from the State. The heads of these institutions are appointed by the Governor of the State. Under this arrangement, it is rare indeed that a suspicion of political preferment does not prevail. It is rare also for a man to head one of our charity hospitals by appointment of more than one governor. Ability and real accomplishment apparently count little. Knowing that whether he does much or little, whether he builds or tears down, he is going to be replaced in four years, where is the incentive to high endeavor?

We have learned that education and politics do not mix. We are now determined to remedy that situation. How much less should the care of human life be mixed with political gifts. Does the political affiliation of a doctor qualify him as a hospital administrator or surgeon? Would the result not be surer of real worth if the appointments were made by a board or commission in close touch with hospital affairs and with medicine?

The Mississippi State Medical Association is asking for the establishment of community hospitals, one of the grounds being that the present charity hospitals do not effectively serve the whole state because of location. One suggested means of obtaining money for community hospitals is to do away with the present charity hospitals and to take the funds now expended for their support for distribution among the 82 counties of the State.

Perhaps the Legislature will see fit to do this. There is no doubt of a need that is real for provision for caring for charity patients at long distances from the present charity hospitals. Some doubt the wisdom of destroying the long record of service of our charity hospitals for this purpose. Possibly a way may be found to give care to charity patients in all parts of the State and still maintain the institutions we now have.

But, if we are to continue with the present charity hospitals, let's improve them, let's make them real teaching institutions approved by every

association and college in the country, let's make them show places of the best in medicine of which we may all be proud. To do this, they must be headed by men chosen by civil service or similar plan, men who will hold their positions without fear of removal under good behavior and as long as they are getting results, men who will know that they will receive credit and recognition for work well done.

In Simpson County is a State institution, which is known for its outstanding work throughout the whole United States and even in many foreign countries. The man who heads that institution, our tuberculosis sanatorium, has made a name for himself as well known as the institution he serves. Would that institution now stand where it does had every incoming governor changed its administration? It would not. Free from political intervention and responsible to the State Board of Health, and removable only for cause, Dr. Henry Boswell has had an incentive to do his best, has done it and is still doing it.

Many efficient and excellent doctors and administrators have and are heading our State charity hospitals. It is not difficult to see where our charity hospitals might have been had those men had the opportunities and feeling of security that Dr. Boswell has enjoyed.

Perhaps our Legislature will do away with the charity hospitals. Perhaps it will decide that they are needed as well as community hospitals. If this be the case, the time is particularly ripe for a change for the better. The legislators were elected by a people aroused against political interference with state institutions. Those legislators should be very ready to better safeguard the health of our people at the same time that educational institutions are being "saved." The cost need be no more than in the past. It is even conceivable that it might be less under a policy of permanent heads for charity hospitals. Our hospitals could be made such teaching institutions for interne and post graduate study that there would be a constant demand for an opportunity for such service. We, as physicians of Mississippi, would be proud of our State charity hospitals, and would be better doctors from observing their work well done.

HISTORY.

The following abstracts from the history of the Mississippi State Medical Association are being printed in order that members of the Association may make any suggestions or corrections desirable before final publication. Please read carefully and communicate with Dr. E. F. Howard, Historian, Vicksburg, if you feel that any changes are to be made.

1925.—Legislation looking to the protection of young children from burns by lye and similar commodities of common use in homes was sug-

gested at the 1925 meetings by the American Medical Association, which was endeavoring to obtain national and state laws governing the matter, and a bill to this end was introduced.

1926.—At the 1926 session of the Legislature; but the Committee became involved in a fight with Chiropractors, who were seeking the establishment of a Board of Examiners of their own, and the bill was pigeon-holed. It was not until 1930 when it was introduced by Senator Culkin of Warren County as a personal measure, entirely separate from Association affairs, that it became a law.

1927.—Vicksburg was to have been the scene of the 1927 meeting, but the disastrous floods in the Delta had so filled the city with refugees that accommodations were taxed to capacity and the members who lived there had their hands full of other business than that of entertainment, so the meeting was transferred to Jackson. The disaster that necessitated the change was not, however, passed unnoticed by the Association. One thousand dollars were given to the Auxiliary to purchase materials for making undergarments and layettes for the flood victims and a equal amount was placed in the hands of a relief committee to be used in meeting the immediate, urgent needs of members living in the overflowed territory. A third thousand was subscribed for Rehabilitation Corporation stock, but this was never called.

A substantial free-will offering was made by the members to meet the immediate needs of Dr. J. D. Westmoreland of Murphy, whose heroic work had been the means of saving many lives and alleviating much suffering, while costing him practically all of his own possessions.

1928.—Finances had the floor at the 1928 meeting and the question of an increase in dues came up for consideration. The Mississippi tax for membership in the Medical Association has always been a light one compared with that in other states, and yet there has never been a lack of necessary funds when something out of the ordinary was needed. But two-thirds of a total year's income had been given away the year before and there has been a considerable increase in the cost of many things, so an increase in dues amounting to thirty-three and a third per cent was suggested and the amendment to the By-Laws necessary for such action was passed.

1929.—A loss of membership on this account was generally predicted, but the activity of the president was such that an actual, though small, increase was shown for 1930, in

1930.—Which year the meeting was in Vicksburg, by way of recompensing that City for the loss of the 1927 session, and, as is customary when visitors are in that historic place, the Association relaxed to a greater degree than usual and spent more time on pleasure.

COMMUNICABLE DISEASES.

The Bureau of Communicable Diseases of the Mississippi State Board of Health has announced that for the month of November, 1931, there were reported in the State 40 cases of typhoid fever; 44 of small pox; 391 of diphtheria; 154 of scarlet fever; 342 of pellagra; and 59 of tuberculosis.

While we as physicians cannot force everyone in the State to be immunized against those diseases in which artificial immunization is possible, are we doing all we can do to secure the immunization of our own patients or even of our own families? A determined stand at all times in this regard will accomplish much. Our State suffers by the publication of such statistics as those given above. Let's work a little harder for the health of Mississippi in 1932.

It is gratifying to know that 98.8 percent of the physicians of the State are making regular reports of communicable diseases. That will help.

ISSAQUENA-SHARKEY-WARREN COUNTIES MEDICAL SOCIETY.

The regular monthly meeting of the Issaquena-Sharkey-Warren Counties Medical Society was held at the Y. M. C. A., Vicksburg, January 12, with 21 members present. The scientific program included the following:

Symposium on Syphilis.—Dr. W. G. Weston, Vicksburg, chairman.

1. Ocular Manifestations of Syphilis.—Dr. E. H. Jones, Vicksburg.

2. Cutaneous Lesions of Syphilis.—Dr. W. E. Akin, Jr., Vicksburg.

3. Complications in the Treatment of Syphilis.—Dr. W. G. Weston, Vicksburg.

Discussions by Drs. P. S. Herring, Vicksburg; J. A. K. Birchett, Jr., Vicksburg; G. P. Sanderson, Vicksburg; H. H. Haralson, Vicksburg; F. M. Smith, Vicksburg; H. S. Goodman, Cary; S. W. Johnston Vicksburg; N. B. Lewis, Vicksburg. Discussion closed by Drs. Jones, Akin, and Weston.

The Surgical Treatment of Peptic Ulcers (A Moving Picture), shown by Drs. S. W. and W. E. Johnston, Vicksburg, by courtesy of Davis and Geck, Inc., Brooklyn, New York.

The Secretary's report for the year of 1931, showed:

Membership—Issaquena County, 3; Sharkey County, 7; Warren County, 30; Life members, 2; Honorary members, 2, a total of 44, which was the same as for the preceding year.

Meetings—11 regular meetings. No meeting was held in May because of conflict of dates with the meeting of the Mississippi State Medical Association. Two joint meetings were held with the Fifth District Medical Society of Louisiana, one in Monroe in June, and one in Vicksburg in December. Two joint meetings were held with the Central Medical Society, one in Jackson in April and one in Vicksburg in July.

Attendance at Meetings—Members attended 216 times, an average of 20 at each meeting or 54 per cent as against 40 per cent last year. Visitors attended 92 times, an average of eight at each meeting. The total attendance for the year was 308, an average of 28 at each meeting.

Presenting Papers—Papers were presented by 21 members or 48 per cent, as against 16 or 36 per cent in 1930. Papers were presented by six visitors.

Dr. W. G. Kiger, Brunswick, and Dr. H. B. Wilson, Vicksburg, were unanimously elected to honorary membership in the Society.

President H. S. Goodman announced the appointment of the following committees:

Auditing: Drs. J. A. K. Birchett, W. H. Parsons and P. S. Herring.

Public Health and Legislation: Drs. G. M. Street, I. C. Knox and B. B. Martin.

The Program Committee announced committees to have charge of the monthly scientific programs for the year as follows:

January.—Dr. W. G. Weston, chairman; Dr. W. E. Akin, Jr.; Dr. A. K. Barrier, Dr. E. H. Jones.

February.—Dr. W. E. Johnston, Vicksburg, chairman; Drs. E. B. Stribling, Rolling Fork, M. H. Bell, Vicksburg, G. M. Street, Vicksburg.

March.—Dr. J. A. K. Birchett, Jr., Vicksburg, chairman; Drs. J. B. Benton, Valley Park; A. Street, Vicksburg; J. A. K. Birchett, Vicksburg; C. J. Edwards, Vicksburg.

May.—Dr. F. M. Smith, Vicksburg, chairman; Drs. L. J. Clark, Vicksburg; W. H. Scudder, Mayersville; V. Bonelli, Vicksburg; D. P. Street, Vicksburg.

June.—G. P. Sanderson, Vicksburg, chairman; Drs. R. H. Foster, Anguilla; G. W. Gaines, Tallulah, La.; Dr. J. S. Ewing, Vicksburg.

July.—Dr. J. E. Quidor, Vicksburg, chairman; Drs. H. B. Goodman, Vicksburg; W. C. Pool, Cary; M. J. Few, Rolling Fork; T. A. Heath, Shiloh.

August.—Dr. A. J. Podesta, Vicksburg, chairman; Drs. H. S. Goodman, Cary; H. H. Haralson, Vicksburg; T. W. Huey, Grace.

September.—Dr. W. H. Parsons, Vicksburg, chairman; Drs. D. A. Pettit, Vicksburg; P. S. Herring, Vicksburg; B. B. Martin, Vicksburg. man; Drs. E. F. Howard, Vicksburg; L. S. Lip-pincott, Vicksburg.

October.—Dr. C. C. Jarratt, Vicksburg, chairman.—Dr. N. B. Lewis, Vicksburg; Dr. S. W. Johnson, Vicksburg; Dr. B. T. Orendorf, Rolling Fork; Dr. I. C. Knox, Vicksburg.

The next meeting of the Society will be held at the Y. M. C. A., Vicksburg, February 9, at 7 p. m.

CENTRAL MEDICAL SOCIETY.

The last monthly meeting of the year of the Central Medical Society was held on December

22, at the Edwards Hotel, Jackson. There were present 79 members and a few guests. After a banquet, a business meeting was called, President C. L. Green presiding. For the scientific program, Dr. R. C. O'Ferrell read a paper on obstetrics, giving a report on some of the newer methods developed at the New York Lying-in Hospital. Dr. G. S. Adkins read a paper on allergy, discussing some of the newer theories, especially the cellular theory and its relation to such diseases as hay fever and asthma. Dr. J. P. Wall read a paper on State medicine and the industrialization of medicine, discussing the tendency towards those things.

The following officers were elected:

President—Dr. Julius Crisler, Jackson.

Vice-Presidents—Dr. T. J. Crofford, Hinds County; Dr. R. W. Smith, Madison County; Dr. W. H. Watson, Rankin County; Dr. A. E. Kennedy, Simpson County; Dr. O. O. Austin, Scott County; Dr. J. T. Rainer, Yazoo County.

Secretary—Dr. Robin Harris, Jackson.

Delegates to the Mississippi State Medical Association—Hinds County, Dr. J. P. Wall, alternate Dr. H. F. Garrison; Dr. N. C. Womack, alternate Dr. L. W. Long; Madison County, Dr. J. B. Howell, alternate, Dr. L. C. Jones; Rankin County, Dr. R. N. Whitfield, alternate Dr. W. H. Watson; Simpson County, Dr. E. L. Walker, alternate Dr. Henry Boswell; Scott County, Dr. W. C. Anderson, alternate Dr. R. B. Austin; Yazoo County, Dr. J. B. Anderson, alternate Dr. Carl Day.

Medico-Legal Committee—Hinds County, Dr. W. E. Noblin; Madison County, Dr. J. B. Howell; Rankin County, Dr. W. H. Watson; Simpson County, Dr. S. L. Knight; Yazoo County, Dr. John Darrington; Scott County, Dr. R. B. Austin.

Program Committee—Dr. A. G. Wilde, Jackson, chairman; Dr. J. P. Wall, Jackson, vice-chairman; Dr. J. W. Barksdale, Jackson; Dr. R. W. Hall, Jackson; Dr. L. W. Long, Jackson.

Board of Directors—Dr. John Darrington, Yazoo City; Dr. J. W. Barksdale, Jackson; Dr. J. P. Wall, Jackson; Dr. O. H. Swayze, Yazoo City; Dr. R. W. Hall, Jackson; Dr. C. L. Green, Utica.

D. W. Jones.

KOCH'S ANNOUNCEMENT OF THE TUBERCLE BACILLUS.

Mr. Logan H. McLean, Executive Secretary of the Mississippi Tuberculosis Association, has announced that in the March issue of the American Review of Tuberculosis, Koch's announcement of the discovery of the tubercle bacillus will appear in English for the first time. An introduction for this paper by Dr. Allan Krause is contemplated. Because of many suggestions that this article be reprinted for general distribution in connection with the celebration of the fiftieth an-

niversary of Koch's discovery, the National Tuberculosis Association has undertaken publication in the form of a forty-page bound volume.

Because of the historical as well as the practical value of Koch's paper, it is likely that many medical men will want a copy. The Mississippi Tuberculosis Association, with headquarters at 501 Old Merchants Bank Building, Jackson, will supply this volume to members of the medical profession at cost, which will depend upon the number of copies ordered. The cost will not exceed 50 cents and it may possibly be as low as 25 cents.

DESOTO COUNTY.

At a recent meeting of the DeSoto County Medical Society the following officers were elected for 1932:

President—Charles Whitley Emerson.

Vice-President—Alex J. Weissinger.

Secretary-Treasurer—L. L. Minor.

A. J. Weissinger was elected delegate to the State Association with A. L. Emerson as alternate.

Mr. J. M. Weissinger, aged 84 years, a Confederate Veteran and father of Dr. A. J. Weissinger, died recently at his home in Hernando.

Dr. J. A. Rhodes, Horn Lake, who has been somewhat indisposed for several weeks, is improving. The doctor is much elated over the fact that he is now a grandfather. His daughter Ruth, Mrs. David Hughes, is the mother of a fine boy.

L. L. Minor, County Editor.

ISSAQUENA COUNTY.

Two out of Issaquena's four physicians are members of the county board of supervisors, one of them being president of the board. This speaks well for the doctor. The people have faith in their integrity, as well as their business ability. It is an indication of the return of the old time country doctor, whom the people use to love, confided in, and trusted. It takes times of adversity and financial distress to bring people to their senses and set them right. We take this as a sign of better times ahead.

W. H. Scudder, County Editor.

VICKSBURG SANITARIUM.

The regular monthly meeting of the staff of the Vicksburg Sanitarium was held on Monday, January 11. After transacting the business of the staff and an analysis of the work of the hospital for the past month, the following special case reports were presented:

Subdeltoid Bursitis.—Dr. A. Street.

Fracture of the Patella.—Dr. J. A. K. Birchett, Jr.

Three minute reports on the literature of the month were made by Drs. L. S. Lippincott, J. A. K. Birchett, Jr., L. J. Clark, and G. C. Jarratt.

Selected radiographic studies were demonstrated as follows: Fracture of femur, Lane plate; healed

tuberculosis of thoracic spine; osteomyelitis of femur with associated chronic inflammatory of other femur; abscess of fourth lumbar vertebra, fusion as end result; subdeltoid bursitis.

Dr. W. E. Johnston presented a moving picture, "Peptic Ulcer," by courtesy of Davis and Geck.

The report of the secretary for 1931 showed: members of active staff, 7; intern, 1; numbers of courtesy staff, 4; number of regular meetings held, 12; attendance of staff members, 115; average, 9.6; attendance of visitors, 35; average, 2.9; total attendance, 150; average, 12.5.

The next meeting of the staff will be held on Wednesday, February 10.

The meeting closed with a lunch.

WARREN COUNTY.

Dr. R. E. Cutts of the Mayo Clinic spent a few days with Dr. W. H. Parsons recently.

Dr. W. E. Johnston visited his brother, Dr. Hugh Johnston, at the Mayo Clinic in December.

Edley H. Jones, County Editor.

WASHINGTON COUNTY.

Dr. T. L. Dobson, Leland, is vacationing in Hot Springs, Ark.

Dr. Paul Gamble, Greenville, attended the birthday party of Dr. Matas in New Orleans.

Dr. K. L. Witte, Leland, has returned home after a three weeks' stay in the hospital. Dr. Witte has greatly improved, much to the delight of his many friends, but is still confined to his bed.

Dr. Virgil Payne, Greenville, leaves within a short time for Florida to spend the remainder of the winter recuperating from a recent operation.

Dr. Paul Gamble, Greenville, visited the Vanderbilt Hospital at Nashville, Tenn., during the Christmas holidays.

Dr. A. G. Payne, Greenville, president of the Mid-South Post Graduate Medical Assembly, formerly the Tri-States Medical Association of Mississippi, Arkansas and Tennessee, invites and urges the attendance of not only the members of the medical profession in Washington County, but all members in Mississippi to attend the annual meeting, which take places in Memphis, February 9 to 12, inclusive. He states that a particularly interesting and valuable program has been arranged for this meeting.

F. M. Acree, County Editor.

LEFLORE COUNTY.

Dr. R. B. Yates has returned to Greenwood to continue the practice of his profession after an absence of a year.

Dr. Yates will be joined by his family about January 15, and they will again occupy their home on River Road.

W. B. Dickens, County Editor.

MONROE COUNTY.

Good-bye, Thirty-one; howdy, Thirty-two. Much water has flown over the dam this year; how about the grist? I sincerely hope that each of us has striven to add something to the sum of human happiness and to the advancement of the knowledge of medical science.

Your correspondent attended the recent meeting of the Southern Medical Association. It was, indeed, a great meeting—perhaps the greatest in its history both in point of attendance and general interest. The program was full and the personnel and standing of the essayists was the very best, many of the nation's foremost men appearing on the list. Our own Dr. Underwood presided with his customary poise, equanimity and dignity. Mississippi and Mississippi doctors have just cause to be proud of him. Your correspondent drove, or rather rode, down to New Orleans with Dr. M. Q. Ewing and his very engaging wife, in their new automobile. The trip was without untoward incident and most enjoyable, indeed.

The Thirteen-County Medical Society held its last quarterly meeting for the year 1931, in Tupelo, on December 15. This meeting was up to standard in all particulars. We were very happy to have as our special honor guest on the program, Dr. W. D. Haggard. Every one who knows Dr. Haggard knows that his lecture was both interesting and instructive. We had other able and welcome visitors. Among these were Drs. Culley and Mull of "Ole Miss" and several of our good friends from Memphis. They are always welcome and we hope they will continue to visit with us on these quarterly meetings. After the scientific program was completed, officers for the ensuing year were chosen. Dr. W. C. Spencer of Tupelo was chosen to serve as president. Dr. Spencer is one of the districts oldest physicians. He has been a faithful member of the society since its organization. He is the father of two doctor sons who are well established in the profession. One is a member of this society; the other lives and works in one of the cities of Texas. Our society was very glad to pay tribute to one who has proven himself worthy and most deserving. In fact, we simply acknowledged the honor that Dr. Spencer has conferred on us by his life of service and loyalty. In the words made immortal by the great Joe Jefferson, "May he live long and prosper." Of course, Dr. Acker was re-elected secretary. It is not saying too much to state that much of our prestige among sister societies is due to the loyal and efficient service rendered by Dr. Underwood during his long incumbence of the secretarial office and that of Dr. Acker since his succession to the arduous duties of the service.

As evening came on, we repaired to Hotel Tupelo, where we were banqueted in wonderful

style by the Tupelo members. While we ate and cultivated "the tie that binds" we were entertained by one of the state's sweetest singers (I mean the singing is sweet, not the singer; for it happens that the singer is a *man*), namely, Mr. Paul Ballard of Tupelo. At the close of the banquet, Dr. Casa Collier of Memphis told us of his trip into "darkest Africa" and showed the pictures of his trophies in the hunt.

Our next meeting will be at Booneville on the 15th of March. "Come one, come all."

Yours for a better year's service.

G. S. Bryan, County Editor.

TRI-COUNTY MEDICAL SOCIETY.

The Tri-County Medical Society met in its regular annual session in Brookhaven, December 8, President F. E. Collins in the chair.

After the reading of the minutes of the last meeting and consideration of a few local matters, the election of officers for the coming year was taken up. The result was as follows:

President—Dr. A. B. Harvey, Tylertown.

Vice-Presidents—Dr. J. H. Beavers, Wesson, for Copiah County; Dr. R. E. Higdon, Brookhaven, for Lincoln County; Dr. R. Reagan, Tylertown, for Walthall County; Dr. J. W. Wilson, Monticello, for Lawrence County.

Secretary and Treasurer—Dr. H. R. Fairfax, Brookhaven.

Censor for Three Years—Dr. B. S. Waller, Silver Creek, for Lawrence County.

Medico-legal Commission—Dr. W. H. Frizell, Brookhaven.

Delegates to Mississippi State Medical Association—Dr. W. L. Little, Wesson, for Copiah County; Dr. O. N. Arrington, Brookhaven, for Lincoln County; Dr. R. E. Sylverstein, Tylertown, for Walthall County; Dr. T. F. Conn, Monticello, for Lawrence County.

Legislator Commission—Dr. W. L. Little, Copiah County; Dr. O. N. Arrington, Lincoln County; Dr. A. B. Harvey, Walthall County; Dr. T. F. Conn, Lawrence County.

H. R. Fairfax, Secretary.

MISSISSIPPI STATE BOARD OF HEALTH.

The following men were granted four month's postgraduate courses at Tulane, beginning January 4, 1932. These fellowships are available under the Commonwealth Fund's plan of co-operation with the Mississippi State Board of Health. The physicians take general courses or "brush up" on any specialty in which they may be engaged.

State-at-large—Dr. L. B. Austin, Rosedale; Dr. B. B. Harper, Bena; Dr. R. R. Halfacre, Sumrall; Dr. D. R. Moore, Byhalia; Dr. W. S. Slaught-ter, Jonestown.

Lauderdale County—Dr. James Bennett, Meridian; Dr. C. T. Burt, Meridian; Dr. R. E. Fowler, Meridian, Dr. B. L. Robinson, Meridian, Dr. T. J. Smith, Meridian.

Pike County—Dr. J. E. Brumfield, Magnolia; Dr. W. C. Hart, McComb; Dr. G. W. Robertson, Magnolia; Dr. M. D. Ratcliff, McComb; Dr. J. M. Smith, Magnolia.

The following were recent visitors to the Mississippi State Board of Health: Dr. John H. Janney, Director Anne Arundel County Health Department, Annapolis, Maryland; Dr. Clarence L. Scamman, Director, Public Health Division, The Commonwealth Fund, New York, N. Y.; Dr. L. L. Lumsden, Medical Officer, U. S. Public Health Service, New Orleans, Louisiana; Dr. John Thames, County Health Officer, Charleston, West Virginia; Dr. Wilson G. Smillie, School of Public Health and Hygiene, Harvard University, Boston, Massachusetts; Dr. James E. Sidel, National Child Labor Commission, New York, N. Y.

At the annual Health Officers' and Inspectors' Conference held in Jackson on December 17 and 18, there were ninety-two present.

The regular meeting of the Mississippi State Board of Health was held in Jackson on December 17th, 1931. The following men were licensed to practice medicine: Dr. Elmer D. Gay, Gulfport; Dr. Dennis C. Stoudenmire, Walnut Grove; Dr. William G. Weston, Vicksburg; Dr. Sharkey Wolfe, Chatham; Dr. George K. Sims, Laurel; Dr. John F. Busey, Jr., Biloxi; Dr. Thomas J. Perkins, Hazelhurst; Dr. Vernon B. Harrison, Clarksdale; Dr. Hewitt H. Robinson, Meridian; Dr. Felix J. Harrell, Jr., Biloxi.

Ernest James Hoskins, an osteopath from Illinois, was granted license to practice osteopathy. He is located at Arcola.

LAUDERDALE COUNTY.

Dr. Chas. T. Burt is doing post-graduate work at Tulane University, as are Dr. R. E. Fowler, Marion; Dr. James Bennett, Meridian and Dr. J. T. Smith, Meridian.

A class of five will complete their courses in post-graduate work at Tulane University on February 15. These are: Drs. C. J. Lewis, T. L. Bennett, E. B. Key, R. M. Leigh, of Meridian; and R. J. Wilson of Bailey.

All of the above received fellowships at the hands of the Commonwealth Fund of New York, which is operating in Mississippi in Lauderdale and Pike Counties.

C. T. Burt, County Editor.

PONTOTOC COUNTY.

New Year Greetings from Pontotoc County, the best county in Mississippi. Pontotoc County is located in the Northern part of the state and

the 1930 census gave us a population of 22,034. We have 16 doctors in the county. Only three of these are inactive. According to population, Pontotoc county has less sickness than any county in the state.

At the meeting of the Northeast Mississippi Thirteen County Medical Society, on December 15, Dr. W. C. Spencer, Tupelo, was elected president. All of the other officers were re-elected for another year. The next meeting of this society will be held at Booneville in March. The second meeting will be held at Amory.

The last staff meeting of the Houston Hospital was held at Houston on December 31.

Dr. J. D. Simmons, Gunnison, was a visitor in Pontotoc during the holidays.

R. P. Donaldson, County Editor.

NORTH MISSISSIPPI MEDICAL SOCIETY.

The North Mississippi Medical Society met at Water Valley, December 15, 1931, and was addressed by Dr. Casa Collier of Memphis, who exhibited motion pictures of his recent big game hunt in Africa. The Society was also honored with the presence of Rev. Gayle Beanland who has been a missionary in Africa for the past twenty years and who was the cordial host of Dr. Collier on his visit to Africa.

The wives and friends of many of the members of the Society attended the meeting and enjoyed Dr. Collier's address and motion pictures.

The officers for 1932 were elected as follows:
President—Dr. H. P. Boswell, New Albany.

Vice-Presidents—From Benton County, Frank Ferrell, Ashland; Lafayette County, E. S. Bramlett, Oxford; Marshall County, C. R. Senter, Byhalia; Panola County, W. C. Lester, Batesville; Tippah County, R. M. Adams, Ripley; Union County, C. M. Speck, New Albany; Yalobusha County, D. C. French, Water Valley.

Secretary—A. H. Little, Oxford.

A. H. Little, Secretary.

EAST MISSISSIPPI MEDICAL SOCIETY.

The East Mississippi Medical Society met in the Lamar Hotel, Meridian, December 17, 1931, with 46 members and four guests present. Dr. A. L. Majure presided and Dr. H. L. Rush acted as secretary.

The following program was rendered:

1. Foreign Bodies in the Food and Air Passages—Dr. Robin Harris, Jackson.

Discussed by Drs. H. L. Arnold, G. L. Arrington and J. S. Hickman.

2. The Right Side of the Heart and Pulmonary Pathology—Dr. Leonard Hart, Meridian.

Discussed by Dr. T. D. Bourdeaux.

3. Wounds and Their Treatment—Dr. V. B. Philpot, Houston.

Discussed by Dr. A. C. Bryan.

4. Pneumonia—Dr. O. Simmons, Newton.

Discussed by Drs. M. J. Lowry, G. W. Bounds and J. S. Hickman.

The following officers were selected for 1932:

President—Dr. J. S. Hickman, Philadelphia.

Vice-Presidents—From Lauderdale County, Dr. G. L. Arrington; from Newton County, Dr. M. L. Flynt; from Neshoba County, Dr. W. R. Hand; from Winston County, Dr. T. F. Kilpatrick.

Delegates to the Mississippi State Medical Association—From Lauderdale County, Dr. M. J. L. Hoyer; Alternate, Dr. K. T. Klein; from Winston County, Dr. T. F. Kilpatrick; Alternate, Dr. E. R. Richardson; from Newton County, Dr. J. L. Parkes; Alternate Dr. Z. C. Hagan; from Neshoba County, Dr. W. H. Banks, Alternate, Dr. J. S. Hickman.

Board of Censors—From Lauderdale County, Dr. R. M. Leigh; from Winston County, Dr. W. W. Parkes; from Newton County, Dr. M. L. Flynt; from Neshoba County, Dr. A. L. Majure.

Secretary—Dr. T. L. Bennett, Meridian.

Medico-Legal Advisor—Dr. I. W. Cooper.

A motion was carried accepting an item of \$650 placed in the 1932 budget of Lauderdale County for the purpose of clinical conferences. This donation is being made by the Commonwealth Fund of New York through the efforts of Dr. F. J. Underwood, executive officer of the Mississippi State Board of Health.

The following committee was appointed by President J. S. Hickman to arrange for these conferences: Drs. C. R. Stingily, chairman; L. V. Rush, K. T. Klein, F. G. Riley, and W. J. Anderson.

Resolutions of respect to the late Dr. W. G. Gill, Newton, as written by a committee consisting of Drs. I. W. Cooper, Z. C. Hagan, and Dudley Stennis, were presented by the chairman, Dr. Cooper, and adopted.

A motion by Dr. H. L. Rush was passed amending the By-Laws so that the secretary will have full rights of membership without payment of dues.

On December 27, 1931, the following committee was appointed by President Hickman to arrange for a series of lectures in Meridian by Dr. C. L. McCord of Atlanta, Georgia, sponsored by the State Board of Health, and to begin about Monday, February 8, 1932: Dr. J. T. Gooch, chairman; Dr. I. W. Cooper, Dr. G. L. Arrington. T. L. Bennett, Secretary.

DR. WILLIAM GREGG GILL.

In the loss of Dr. William Gregg Gill, the American Medical Association, the Southern Medical Association, the Mississippi State Medical Association and the East Mississippi Four

County Medical Society have lost a very valuable and influential member and his advice and counsel will be sadly missed.

Dr. Gill was a native Mississippian, a graduate of Tulane University of Louisiana in medicine and served his internship in the Charity Hospital in New Orleans, Louisiana. Following this internship, he attended the Army Medical School at Washington and after completing this course resigned to return to his native state to practice medicine.

He first began the practice of medicine at Crystal Springs, Mississippi, and in a few years moved to Newton, Mississippi, where he purchased the Newton Sanatorium and this he operated for a number of years.

Dr. Gill was very active in organized medicine, being a very active member of this Society and serving as Counselor in the State Medical Association for many years.

Dr. Gill was taken sick early in 1931 and was sick for many months. His suffering and sickness he bore with great fortitude and in August, 1931, at the Baptist Hospital in New Orleans, Louisiana, his beautiful spirit went out into the realms of immortality. His body was returned at his request to Newton, Mississippi where amid a great concourse of sorrowing friends the funeral services were conducted and immediately after, his body was taken to Clinton, Mississippi; his birthplace and old home, where all that was mortal of this devoted friend and physician was laid to rest by the side of his loved ones who had gone before him and we feel that, "After life's fitful fever, he sleeps well."

WHEREAS—We realize that a great and good man has fallen and that we feel that this association has sustained an irreparable loss; therefore

BE IT RESOLVED—That in the death of Dr. William Gregg Gill this Association has lost one of its most useful and faithful members.

BE IT RESOLVED—That this life, character and self-sacrificing services command our highest admiration.

BE IT RESOLVED—That a copy of these resolutions be furnished his devoted wife and lovely daughter and a page of our minutes be set apart for these resolutions, that they be printed in our Official Journal and in the Newton Record.

(Signed) I. W. Cooper, Chairman.
Dudley Stennis,
Z. C. Hagan.

CHOCTAW COUNTY.

We have little news at this time. There is no hospital in this county, therefore, we have no report from that source.

Miss Mary Ann Arnold, the youngest child of Dr. and Mrs. W. D. Arnold, recently had an attack of appendicitis.

Dr. M. P. Jurney, formerly of Longview, is now located at Ackerman.

J. James, County Editor.

HUMPHREYS COUNTY.

Dr. and Mrs. J. C. Higdon, spent Christmas day with friends at Rolling Fork.

Dr. and Mrs. J. A. Wadlington, visited their son, Dr. J. E. Wadlington at Florence. Dr. J. E. Wadlington is a graduate of the University of Tennessee in the class of 1931.

Dr. J. R. Jackson, a graduate of the University of Tennessee in the class of 1931, and now holding an internship at the City Hospital, Philadelphia, Pennsylvania, spent Christmas with his parents at Belzoni. Dr. Roberts expects to specialize in obstetrics and gynecology.

Welcome 1932. Thrice welcome Dr. Bill Noblin, son of Dr. W. E. Noblin, Jackson. Bill was our sanitary inspector for some two years or more and is now a two-year student at Oxford and student intern. We hope for these bright young doctors a happy and prosperous future. I feel sure I express the sentiment of all real doctors when I admonish them to hold sacred the Oath of Hippocrates. If they have chosen their profession for the good they may do mankind, may God bless them, but if they have chosen hoping to gain fame and fortune, may God pity them.

Dr. and Mrs. G. M. Barnes and two boys spent the holidays, with Mrs. Barnes' sisters at Red Lick.

I have been on the sick list for some time having my molars lifted, antrum drilled for oil or other fluid, diet restricted or rather eliminated, just sailing along nicely on grape juice, tomato juice, rye bread and black coffee. Guess I will have to check and double check the Delta Medical Association, since my doctor says, no more CORN.

Dr. W. S. Taylor, Isola, is a new member of our board of supervisors. Although we have high water, no money, no sickness, still we feel sure the old canoe will ride the waves of despair safely with such a fine man as Dr. Taylor wielding the paddle.

G. M. Barnes, County Editor.

HOUSTON HOSPITAL.

The monthly staff meeting of the Houston Hospital was held Thursday evening, December 31. There were about thirty doctors present from Chickasaw and surrounding counties.

Dr. V. B. Philpot gave a splendid paper on "Wounds and Their Treatment," which was dis-

cussed in turn by each doctor present. After this discussion the business of the meeting was taken up. Refreshments were served, and the meeting was adjourned until four weeks.

William C. Walker.

WOMEN'S AUXILIARY.

The Women's Auxiliary of the Issaquena-Sharkey-Warren Counties Medical Society met at the Public Library, Vicksburg, December 15.

After the regular business was disposed of the nominating committee reported and the following officers were elected:

President—Mrs. W. C. Pool, Cary.

First Vice-President—Mrs. H. B. Goodman, Cary.

Second Vice-President—Mrs. J. B. Benton, Valley Park.

Third Vice-President—Mrs. Edley H. Jones, Vicksburg.

Secretary—Mrs. M. H. Bell, Vicksburg.

Treasurer—Mrs. Preston Herring, Vicksburg.

Parliamentarian—Mrs. E. F. Howard, Vicksburg.

The retiring President, Mrs. E. F. Howard, in a pretty little speech presented to Mrs. Pool a gavel which she stated was made, by a local concern, of wood taken from the old Porterfield home which was used as a hospital during the siege of Vicksburg and on the staff of which Dr. E. F. Howard's father had served.

The officers will be installed at the regular meeting in January.

Mrs. M. H. Bell, Secretary.

PONTOTOC COUNTY.

Since writing you last, the members of the Northeast Mississippi Thirteen Counties Medical Society have had a big day. The meeting was held at Tupelo the third Tuesday in December. The attendance in general was fine, yet the attendance of Pontotoc county doctors was a little below the average. There were two big items on this program in addition to the regular routine of instructive papers and discussions. The extras were Dr. William D. Haggard of the surgical staff of Vanderbilt on "The Acute Abdomen," and moving pictures of modern goiter operation and Dr. Collier of Memphis who gave a lecture and moving picture of his experiences in Africa. Dr. Haggard gave one of his usual easy and graceful yet dignified lectures on the acute abdomen. He thoroughly covered the subject and any one could make a much better diagnosis of this common condition after hearing him. After a splendid dinner at Hotel Tupelo, Dr. Collier delighted the audience with a graphic description of the thrills of the elephant and hippopotamus hunter in Africa. After the lecture followed moving pic-

ture reels of the very things he had told about. The meeting was highly instructive and the lecture and pictures highly enjoyable.

Dr. Spencer of Tupelo was elected our president for 1932. Dr. J. W. Gillespie of Sherman was elected vice-president for Pontotoc county. All members of the House of Delegates were retained for another year.

Among the visitors were Dr. John C. Culley of Oxford and Dr. Mull of University. Both made very interesting talks. Quite a number of Memphis doctors were present and added much to the discussion of the papers.

Dr. Dempsey of Toccopola has moved to Potts Camp.

Everything is very quiet with the doctors in general in Pontotoc County. Though we are above high water mark so far as floods are concerned, our roads are wet and continued rains make it very disagreeable.

Our next quarterly meeting will be held at Booneville the third Tuesday in March.

Eliaim B. Burns, County Editor.

ADAMS COUNTY.

Dr. Dunbar Shields, who graduated from Tulane Medical School last year, and is now an interne at St. Luke's Hospital, New York City, spent the Christmas holidays with his parents, Dr. and Mrs. J. D. Shields, at Pine Ridge.

Dr. and Mrs. Raymond Smith, Devereux, had as their guest Dr. Smith's sister, Miss Myra Smith, of Chicago, Mrs. Smith's brother, Dr. Spurgeon Taylor and daughters, Misses Annie Laurie and Josephine Taylor of Tuscaloosa, Alabama, Miss Mildred Darby of Charleston, and Mr. and Mrs. Tom C. Taylor of Memphis.

Prior to the midnight show on New Year's Eve, Dr. and Mrs. Philip Beekman were hosts at an informal but delightful gathering of friends. A buffet supper was served and midnight theater party followed.

Dr. and Mrs. W. H. Aikman had as guests during the Yuletide season Mr. and Mrs. Shields Dunbar, former Natchexians.

Miss Nita Beer returned to her home in New Orleans recently after a visit of two weeks as a guest in the home of her brother-in-law and sister, Dr. and Mrs. Philip Beekman.

Mrs. Wainwright P. Wemple of Lakewood, New Jersey, recently entertained at a dinner at her winter home in Beechwood, New Jersey, in honor of six nurses receiving their bachelor of science degrees from Columbia University, among them Misses Jessie W. Tyler, of Natchez. Mrs. Wemple was a former Natchez nurse.

L. Wallin, County Editor.

CLAIBORNE COUNTY.

Dr. D. M. Segrest, son of the late Dr. R. A. Segrest, Port Gibson, has located in the office of his late father for the practice of medicine.

Mrs. Chapman, wife of Dr. A. L. Chapman, Hermanville, died at her home following an illness of several months.

At the regular December meeting of the Claiborne County Medical Society, held at Port Gibson, there were present Drs. J. V. May, G. W. Acker, and D. M. Segrest. Officers for 1932 were elected as follows:

President—Dr. J. V. May, Port Gibson.

Vice-President—Dr. D. M. Segrest, Port Gibson.

Secretary and Treasurer—Dr. G. W. Acker, Port Gibson.

Delegate to the Mississippi State Medical Association—Dr. J. V. May.

W. N. Jenkins, County Editor.

YAZOO COUNTY.

I am still continue to house most of the time, recovery very slow. Not much doing as the doctors all complaining of "hard times" and no money.

Dr. Gilruth Darrington and Dr. Joe Roberts made a flying trip to Vicksburg during the holidays.

C. M. Coker, County Editor.

JACKSON COUNTY.

The regular meeting of the staff of the Jackson County Hospital was held on January 4, at 7:30 p. m. Officers for the year of 1932 were elected as follows:

President—Dr. J. N. Rape.

Vice-President—Dr. S. B. McIlwain

Secretary—Dr. R. G. Lander.

Report of hospital activities for the month of December was read and discussed. A report of the most interesting cases and a round table discussion was the program of the meeting.

Other members of the staff present besides the officers elect were Drs. J. N. Lockard, J. N. Thrash, and C. H. Gray.

The next meeting will be held at 2 p. m. on February 1, to accommodate some of the members who are unable to attend the evening meeting.

A paper on undulant fever will be read at the next meeting and all present will be called upon for the discussion. Yours for a 100 per cent report for 1932.

S. B. McIlwain, County Editor.

DEATHS OF MISSISSIPPI PHYSICIANS—1931.

According to statistics furnished by Dr. F. J. Underwood, Executive Officer of the Mississippi State Board of Health, fifty-two Mississippi physicians

died during the year of 1931. The average age at time of death for the fifty-one whose age was known, was 61. Deaths were distributed by decades as follows: 30 to 40 years, one; 40 to 50 years, 7; 50 to 60 years, 15; 60 to 70 years, 11; 70 to 80 years, 13; 80 to 85 years, 4. It will be seen with encouragement that all physicians do not die young. Diseases of the heart and blood vessels lead as causes of death, 22 or 45 per cent being attributed in whole or in part to such diseases. Four deaths were attributed directly to malignant disease, and malignancy was present as a contributing cause of death in two others, an incidence of nearly 12 per cent. Pneumonia caused six deaths. Nephritis was named but four times. Following is the list:

Adams, J. S., Sumrall; pneumonia, following accidental burns; Feb. 5; age 52.

Anderson, R. L., Inverness; lobar pneumonia, Friedreich's ataxia; May 31; age 56.

Ashford, J. A., Bolton; diabetes mellitus, senility; March 26; age 78.

Barlow, George W., Lake; arteriosclerosis, hypertension, paralysis; May 14; age 63.

Basinger, R. C., Jackson; cerebral hemorrhage; Jan. 31; age 31.

Bell, C. T., DeKalb; acute dilatation of heart; Jan. 26; age 52.

Blair, John A., Hattiesburg; cardio-hepatic-renal disease; Jan. 22; age 79.

Britt, James Boswell, Cotton Plant; angina pectoris; July 27; age 55.

Bufkin, C. L., Columbia; pellagra; June 5; age 58.

Catchings, Jas. M., Hazlehurst; coronary thrombosis; May 18; age 74.

Coker, D. W., Maud, R.F.D.; chronic interstitial nephritis, uremia; March 25; age 66.

Copeland, James, Tupelo; myocarditis, acute cardiac dilatation; August 2; age 72.

Crawley, J. T., Kosciusko; broncho-pneumonia, carcinoma of colon; November 26; age 78.

Davis, Wm. Little, Walls; myocarditis-muscular rheumatism; May 4; age 74.

Dickerson, Louis D., McComb; appendicitis acute, complications; June 4; age 62.

Dilworth, J. A., Aberdeen; acute dilatation of the heart, carcinoma of prostate; November 12; age 70.

Dorroh, Wm. G., Madison; cerebral apoplexy; February 5; age 60.

Duke, Wm. Tillman, Glen Allen; sudden death; July 23; age 41.

Eatherly, Wilson F., Winterville; diabetic coma, diabetes mellitus; July 7; age 74.

Gandy, Tillis, Royce; pneumonia; January 31; age 45.

Gill, W. Gregg, Newton; undulant fever; August 20; age 49.

Greer, L. L., McComb; appendicitis; July 11; age 50.

Hamilton, E. G., Greenwood; chronic myocardi-
tis; April 26; age 50.

Henderson, J. W., Clarksdale; cardiac vascular
disease, injury in auto accident; September 10;
age 54.

Hughston, W. L., Ethel; leakage of the heart;
February 27; age 63.

Hunter, Wm. Thomas, Decatur; hemiplegia apo-
plexy; June 2; age 59.

Jordan, Samuel M., Georgetown; gangrene;
April 19; age 83.

Lamb, Daniel Reubin, Artesia; organic heart
disease; May 25; age 51.

Martin, W. B., Indianola; sudden death presum-
ably of heart failure; November 23; age 73.

Mason, Geo. David, Lumberton; pneumonia fol-
lowed by encephalitis; April 26; age 43.

Maxwell, V. W., Gulfport; general peritonitis
followed by appendectomy; June 26; age 40.

McHenry, Geo. Austin, McHenry; chronic inter-
stitial nephritis; October 12.

McKinley, Russell, Columbus; broncho-pneu-
monia; January 4; age 58.

McRee, Francis V., Brookhaven; cancer of the
face; July 17, age 80.

Norman, A. C.; Braxton; heart disease, hyper-
tension, contributing cause, cirrhosis of liver;
age 54.

O'Leary, John P., Vicksburg; abscess of lung,
bronchiectasis, chronic myocarditis; February 23;
age 60.

Rowe, E. J., Hillsboro; apoplexy; January 7;
age 69.

Rush, Jesse H., Meridian; chronic myocarditis;
January 22; age 62.

Scruggs, S. A., Lauderdale; sudden death; June
4; age 77.

Segrest, R. R., Port Gibson; carcinoma of right
lung; October 31; age 51.

Sims, J. B., Aberdeen; acute dilatation of heart,
acute indigestion; May 10; age 70.

Smithson, W. W., Jackson; carcinoma of the
liver and stomach, intestinal adhesions; Septem-
ber 9; age 56.

Stewart, Robert H., Poplarville; died following
mastoid and sinus trouble operation; March 16;
age 46.

Stone, G. C., Saltillo; syphilis of the brain;
April 9; age 51.

Sykes, Wm. G., Aberdeen; senility, intestinal
disturbance (diarrhea); January 18; age 85.

Vandiver, James Cox, Baldwyn; acute gall
bladder; June 9; age 48.

Weissinger, W. S., Hernando; chronic myocardi-
tis; April 13; age 83.

Westmoreland, G. M., Batesville; cancer of
stomach; age 78.

Whitaker, Wm. Henry, Grenada; chronic ne-
phritis, embolus followed by cerebral softening,
cerebral embolus contributing cause; March 19;
age 71.

Wiss, Rosa Douglas, Meridian; myxedema; Sep-
tember 14; age 63.

Woodruff, I. T., Batesville; pulmonary tubercu-
losis; July 11; age 60.

Woolsey, Reese S., McCalls Creek; cerebral
hemorrhage, arteriosclerosis; February 2; age 60.

HONOR ROLL.

The following aided in the preparation of the
Mississippi sections of our Journal this month.
Your editors thank you. J. W. D. Dicks, John C.
Culley, E. F. Howard, F. J. Underwood, D. W.
Jones, L. L. Minor, W. H. Scudder, E. H. Jones,
F. M. Acree, W. B. Dickens, G. S. Bryan, H. R.
Fairfax, C. T. Burt, R. P. Donaldson, A. H. Little,
T. L. Bennett, J. James, G. M. Barnes, William C.
Walker, Mrs. M. H. Bell, Eliam B. Burns, L. Wal-
lin, W. N. Jenkins, C. M. Coker, S. B. McIlwain,
A. Street, J. A. K. Birchett, Jr., A. M. Mc-
Carthy.—28.

This month we carry county news items as
follows: Adams, Choctaw, Claiborne, DeSoto,
Humphreys, Issaquena, Jackson, Lauderdale, Le-
flore, Monroe, Pontotoc, Warren, Washington, and
Yazoo—14. Where are the other counties of our
State? Ask your county editor.

DR. THOMAS A. HEATH.

Dr. Thmas A. Heath, aged 77 years, of Shiloh,
died at his home January 17. Dr. Heath had been
a resident of Shiloh for the past 57 years and had
practiced medicine in Issaquena County for the
past 50 years. He is survived by his wife, one
son, T. A. Heath, and six grandsons.

Dr. Heath was an honorary member of the
Issaquena-Sharkey-Warren Counties Medical So-
ciety and of the Mississippi State Medical Asso-
ciation.

BOOK REVIEWS

Simplified Diabetic Management: By J. T. Beardwood, Jr., A. B., M. D., F. A. C. P. and H. T. Kelly, M. D., A. A. C. P. Philadelphia, J. B. Lippincott Co. 1931. pp. 185. Price, \$1.50.

A readable manual devoted to general considerations of diagnosis and treatment. The charts for diet calculations are elaborated and worthwhile. Good tables of food values are presented. A most satisfactory list of specimen diets for diseases co-existent with diabetes is given.

I. L. ROBBINS, M. D.

Medical Psychology: By W. A. White. N. Y. Nervous and Mental Diseases Pub. Co. 1931. pp. 141. Price, \$3.00.

A brief exposition of the mental factor in disease. The greater need of such study is emphasized, with a consideration of psychopathology and psychoanalysis. The conclusion is inevitable that the psychological factor in diagnosis and treatment is inescapable.

I. L. ROBBINS, M. D.

Health Protection for the Preschool Child: Committee on Medical Care for Children. Section I, Medical Service. The White House Conference on Child Health and Protection. New York, The Century Company, 1931. pp. 275. Price, \$2.50.

This much looked for volume has arrived with the exhaustive array of actual information on our younger children which had been expected of it. Its auspices are authority enough to convince us that the scientific spirit underlies both the manner and conduct of the basic surveys and the interpretive analysis of the data.

Four important indices of child health activities were selected as best representing the current state of health protection for the preschool child: The Health Examination; Dental Health Examination; Vaccination against smallpox; and Immunization against Diphtheria. There is much illuminating data in the analytic comparison of these indices to one another in the same or different communities. It was a surprise to learn that in the average city 47 per cent of the preschool children had been taken to a doctor for no other reason than for a health examination while the appallingly low figure of 13 was given as the percentage of preschool children who had received protective vaccination against smallpox. Familiarity and contempt for old established practices would seem to be giving way to more recent development in preventive measures. Diphtheria immunization with 14 per cent has passed Smallpox vaccination.

Even one such fact should be material enough evidence upon which to create a nation-wide activity toward the protection of our children. The survey contains many more.

The reviewer believes that a little too much competitive spirit is shown in Part II which interprets its accompanying charts. The information given deals with the relative percentages and ratings of various cities and geographic areas in respect to the extent to which they have carried out the activities included in the four indices. The explanatory text is necessary and is simply presented, the only criticism being the creation in the reader's mind of an expectant waiting to see if his community is coming in first or last in the contest. It is likely that the compiler had not the least desire to create any such feeling and it is unfortunate that the occasional use of a phrase such as, "A Close Second," should encourage any such biased provincialism.

Part III contains in tabular form all of the information which any seeker after facts might wish regarding his own or another community in so far as these communities have been covered by the survey. Those interested in children's problems have in this and the succeeding Part IV a wealth of material and instruction upon which to base any community investigation in Child Health. The latter section appears to have omitted no details of technic on the conduct of a Health Survey and should prove of exceptional value to future workers.

Surveys of this type are in the ascendancy and the one under review is no exception to the fact that they are so far fulfilling the important requisites of thoroughness and authority.

WM. GARVEY PERKINS, M. D.

The Matas Birthday Volume: A Collection of Surgical Essays Written in Honor of Rudolph Matas, New Orleans. New York, Paul B. Hoeber Co. 1931. pp. 396. Price, \$10.00.

The Rudolph Matas Birthday Volume is indeed a fitting tribute to one who has done so much for the science of medicine and who has inspired and edified not only those with whom he has come in intimate contact, but also the entire medical profession by his numerous and valuable scientific contributions.

The "Appreciation" of Professor Matas, which can be easily recognized as the work of Dr. Isidore Cohn, contains quotations and reminiscences of the Chief, portraying his ability, genius, humanitarianism, and lovable personality.

Contained within the volume are four contributions on vascular lesions, which subject has interested Dr. Matas so keenly and to which he has contributed so much. Those by Mont Reid and Hubert Royster are especially appropriate, because they refer to principles which Dr. Matas has emphasized in his work on the treatment of aneurysms. Reid presents cases illustrating observations which were originally made by Dr. Matas

and which he has repeatedly emphasized in his scientific contributions. These are the advantages of the use of the metallic band in the treatment of aneurysm, the changes occurring in the heart as the result of arteriovenous aneurysm, vascular degeneration associated with arteriovenous aneurysm, and the marked collateral circulation which is present in cases of arteriovenous aneurysm. Royster reports two cases of arterial aneurysm in which a successful endo-aneurysmorrhaphy according to the technic of Dr. Matas was performed. Leriche in his contribution recommends the extirpation of the involved vessels in the treatment of localized obliteration of arteries. He presents both clinical and experimental observations supporting the value of such procedures and believes that the development of collaterals is thus favored, which, according to Leriche, is due to the part played by the sympathetic nerves. Alessandri discusses the value of various operative procedures used in the treatment of Raynaud's disease and thromboangiitis obliterans, emphasizing the importance of the resection of the cervical thoracic ganglia. A case of thromboangiitis obliterans successfully treated by this method is reported.

An excellent summary of the influence which William Stewart Halsted exerted on American surgery is presented by Joseph C. Bloodgood. Such a contribution is especially appropriate, because of the great admiration which Professors Matas and Halsted had for each other. Halsted's contribution to surgical technic and asepsis are summarized, as well as those which he made in the treatment of cancer of the breast, hernia, diseases of the intestine, biliary tract, appendix, vascular system, and thyroid.

A series of three articles pertaining to surgery of the intestinal tract are given by J. M. T. Finney, Senior and Junior, Robert C. Coffey, and E. Ribas y Ribas, of Barcelona, respectively. In the presentation of Dr. Finney's on hypertrophic tuberculosis of the ileum, a relatively rare lesion of a hypertrophic tuberculous lesion of the terminal ileum, is reported. In contrast to the usual tuberculomas in which the lesion is situated in the terminal ileum, cecum and ascending colon, the lesion in the case reported by Finney and Finney, was limited to the ileum. Extirpation of the diseased bowel was performed. One month later, however, there was recurrence of symptoms necessitating a second operation almost two months after the first. An additional resection of the terminal ileum which showed tuberculous involvement was performed, following which the patient made an uneventful recovery. Coffey presents the end results obtained by him in the treatment of cancer of the rectum and sigmoid. In 65 cases, there were 4 deaths, a mortality rate of 16.5 per cent. Of 21 traced cases, 13 (62 per cent) lived five years or more. A full and adequate description profusely illustrated of

Coffey's technic of extirpation of the sigmoid is given. An unusual case is presented by Ribas y Ribas in which an almost complete extirpation of the jejunum and ileum was performed, because of an intestinal obstruction associated with volvulus. The resected portion of the intestine measured sixty centimeters instead of the usual length of from five to seven meters. This is due to the fact, according to Ribas, that apparently in the growth of the intestine, the external coat did not develop normally, whereas the internal and mucous layers continued their growth and development and obliterated the lumen of the gut. The patient made an uneventful recovery from the operation and was very much improved. However, diarrhea which was present after the operation continued after her discharge from the hospital. She continued to lose weight and five months after the operation died of cachexia from inanition.

Three papers on cancer are presented by Frederick J. Hoffman, Shelton J. Horsley, and John B. Deaver, respectively. That of Hoffman is a statistical one and concerns itself with cancer in the North American negro, a subject which has always interested Professor Matas. The study shows that there is an increasing mortality rate among the negro, which approaches that of the white race. The mortality rate of cancer of the genital organs was much higher in negro women than in white women. John B. Deaver, in his presentation on cancer of the breast, presents his end results obtained in 221 cases, of which 189 were traced. Of the 189 cases, 21 were living at the time of the study. There was a 2.7 per cent ten-year cure and an 8.9 per cent five-year cure.

Crile presents a resumé of the various anesthetics which have been used in recent years and stresses the importance of the role which Professor Matas played in developing especially spinal, local, and induction analgesias.

Paul Moura discusses the technic of total rhinoplasty favoring the Indian method, which consists in removing from the forehead a flap of skin and reconstructing the nose.

Joaquin Trais-Pujol describes a persistent fistula which followed marsupialization of a hydatid cyst. Persistence of such a fistula depends upon two causes, either the persistence of a hydrated cyst in the common biliary duct or communication between the cyst and a large biliary channel. In the former instance, treatment consists of evacuation of the cyst, whereas in the latter instance, the treatment consists of extirpation of the communication.

William J. Mayo emphasizes the importance of the special senses in the development of science. The indications and the operative procedure in splenectomy are stressed by David P. D. Wilkie, of Edinburgh. Splenectomy is indicated in cases of splenic anemia, hemolytic jaundice, and hemorrhagic purpura.

Contributions concerning thoracic surgery are given by Howard Lillenthal and Evarts Graham, respectively. Lillenthal, in discussing the operative treatment of pulmonary tuberculosis, stresses the importance of individualizing the therapy to the individual patient. The various operative procedures of pulmonary tuberculosis are discussed. The unreliability of many statistics concerning the end results obtained in the surgical treatment of pulmonary tuberculosis is emphasized. Evarts Graham discusses the associated reaction in the bronchial mucosa with infections of the upper respiratory tract. In a series of approximately fifty cases in which bronchial fistulae are present following caustic pneumectomy, it has been repeatedly demonstrated that infections of the upper respiratory tract after approximately twenty-four hours produce an intense reaction in the bronchial mucosa, and that as the infection of the upper respiratory tract is cleared, the bronchial mucosa infection also clears.

ALTON OCHSNER, M. D.

The Doctor and His Investments: By Merryle S. Rukeyser, B. Lit., M. A. Philadelphia, P. Blakiston's Son & Co., Inc. pp. 330. Price, \$2.50.

Had you inherited a reasonable sense of financial values you would now probably not be a physician. A more lucrative field of effort would have attracted you. The business world rightly regards us as a profession of impractical idealists; otherwise, most medical advances would not have been made. The "feu sacré" that is so essential for even moderate medical success, usually unfits one for business.

The quality and quantity of medical service, as well as the worldly future of ourselves and our dependents, is depending more and more on the intelligent disposition of our earnings; and so, many physicians are being forced to study the A B C's of medical economics. The present volume outlines this subject in a very simple, practical and understanding manner.

Medical colleges in the past have given little thought to the financial side of practice, because those who discussed the subject usually tried to cheat the patient in one form or another. The present tendency is to avoid this very thing. Too much thought about business, however, will probably lower your medical ability; too little, may land you or your family in the poor house.

No saving, no investing! If you are unwilling to do without something that you want today in order to provide for tomorrow, you will probably never succeed financially. If you cannot save money on a \$5,000 year income, you probably would do no better on \$15,000, because expense usually increases faster than income. Regular saving, the author rightly believes, is the most certain, though possibly the most painful way

of accumulating future wealth. This is best accomplished by a budget plan such as the author mentions. Do you know what proportion of your net income should be spent for living expense, how much insurance you should carry, and the amount you should save, as computed by those who have given the most thought to these subjects? Ye doctor and likewise ye family can read and re-read with profit, if not with pleasure, the budget plans presented.

Having saved a few dollars, the next and more difficult problem is how to keep them safe from those who sell rainbows and gold bricks, as well as from borrowing friends and relatives. In other words: "Give, but never lend," and, "Buy only what you know!" Money lending and speculation are distinct professions with which physicians should not compete. The rent value of a dollar with average safety is 6c per year. Your dollars are probably no more beautiful than anyone else's. Remember that every dollar should have a little dime not more often than once in eighteen months, lest it be a miscarriage.

The author suggests that you pledge budgeted savings, preferably through your banker, on the purchase of carefully planned securities. These should consist of the proper proportions of the highest grade bonds, preferred stock and common stock, representing fundamental types. It is thus possible to combine and balance maximum safety and greatest return during the entire business cycle. You will also force yourself to work and save, making speculative adventures impossible. Although the past several years have shown that the financial advice of bankers is far from infallible, it is much more reliable than the high pressure talk of stock salesmen.

Investment trusts in theory invest your money much more wisely than you. During the past several years, some have, but many have not. This subject is discussed at some length, but the author does not clearly explain how to select successful investment trusts from the investor's standpoint.

In the financial world everyone has something to sell. Caveat emptor. If you know nothing about investments, you must depend entirely upon the advice of someone who is apparently competent and who will not take an unfair advantage of your ignorance. Your banker or a financial diagnostician, of which several are mentioned, will probably best serve you. It is better, however, that you have even a slight understanding of the subject which can easily be gotten from this volume. Thus, you will not expect the impossible, nor will you be taken unawares by glib sales talks or other modern plans of exchanging your money for untried ideas.

If you are at heart a gambler and love taking risks, this book is not for you. It is written for those who are willing to deny themselves some of

the pleasures of today in order to provide for their unproductive days and for their dependents at a slow but steady pace augmented somewhat by compound interest.

Periodic financial examinations for physicians are probably as important as periodic health examinations. Do you know how much junk you have accumulated as investments? Do you know how much you are really worth today at a forced sale, and have you a definite plan for weathering the economic storm which is now all about us? This volume will unquestionably help you to understand these problems and many others of a similar nature.

The final chapters are devoted to real estate, home ownership, office equipment, medical arts buildings, and the pros and cons of medical groups.

The author's vast experience with this subject and his ability to express fundamental ideas simply and effectively, make this volume one that should be read and re-read by every physician.

CHAS. A. BAHN, M. D.

Pediatric Education: Report of the Subcommittee on Medical Education, Borden S. Veeder, Chairman, White House Conference, on Child Health and Protection. New York, Century Company. 1931. pp. 109.

This pamphlet contains the final report of the Subcommittee on Medical Education concerning the part which pediatric education should take in the curriculum of modern medical schools. The subcommittee, under Dr. Borden S. Veeder, Professor of Clinical Pediatrics, of Washington University School of Medicine, was composed of medical educators whose reputation as leaders in the teaching of pediatrics has long since been established by service in some of the leading medical schools of the United States. The conclusions were reached after comprehensive, statistical studies in every phase of the relation of pediatrics to undergraduate and post-graduate instruction. Information was obtained from the answers to a vast number of questionnaires sent to pediatricists, physicians especially interested in pediatrics, and professors of pediatrics in sixty-three medical schools.

In order that a concrete idea may be given of the scope of a pediatric course, the committee outlined, with the aid and criticism of many outside of its membership, the material which is essential in one way or another in the education of the physician to the end that he may be able to give an adequate care to the children under his charge. The outline of the course which the committee considers essential, together with the recommendations concerning the teaching staff, hospital and clinic facilities, and laboratories, may be regarded as one of the most important steps which has been made since pediatrics has

been recognized and has attracted so many physicians to take it up. Statistics which have just been compiled by the American Medical Association show that 3,790 physicians limit their practice, or give special attention to pediatrics, as compared to 3,985 in internal medicine. This advance in the popularity of the subject has justified the organization of the American Academy of Pediatrics which will hold its second annual meeting in New Orleans during the meeting of the American Medical Association, in May, 1932.

To this group the efforts of this committee to stabilize pediatric education and the statistical studies which have led to their conclusions, will be received with no small amount of interest.

ROBERT A. STRONG, M. D.

PUBLICATIONS RECEIVED.

William Wood & Company, New York: Emergency Surgery, by Hamilton Bailey, F. R. C. S. Vol. I and II.

W. B. Saunders Company, Philadelphia: A Text-Book of Clinical Neurology, by Israel S. Wechsler, M. D., Second Edition. Female Sex Hormonology, by William P. Graves, A. B., M. D., F. A. C. S.

Lea & Febiger, Philadelphia: A Radiological Study of the Para-Nasal Sinuses and Mastoids, by Amedee Granger, K. C. B., K. C. I., M. D., F. A. C. R. Electrotherapy, by Richard Kovacs, M. D.

Paul B. Hoeber, New York: History of Medicine in the United States, by Francis R. Packard, M. D., Vols. I and II.

The Williams & Wilkins Company, Baltimore: The Vitamins, by Ethel Browning, M. D.

The Year Book Publishers, Chicago: The Practical Medical Series. General Medicine, by George W. Weaver, M. D., Lawrason Brown, M. D. George R. Minot, M. D., William B. Castle, M. D., William D. Stroud, M. D., Ralph C. Brown, M. D. General Surgery, by Evarts A. Graham, A. B., M. D.

The Macmillan Company, New York: Fundamentals of Orthopaedic Surgery in General Medicine and Surgery, by Robert B. Osgood, M. D., and Nathaniel Allison, M. D. Courts and Doctors, by Lloyd Paul Stryker.

Buchholz Publishing Company, New York: Physicians' Manual of Birth Control, by Antoinette F. Konikow, M. D.

G. Doïn & Co., Paris: LeSoufre en Biologie et en Therapeutique, by M. Loeper and L. Bory. La Doctrine de L'Homoeopathie Francaise, by Dr. Leon Vannier.

Garrett & Massie, Inc., Richmond: Medicine in Virginia in the Eighteenth Century, by W. B. Blanton, M. D.

Charles C. Thomas, Springfield: A Doctor of the 1870's and 80's, by William Allen Pusey.

New Orleans Medical

and

Surgical Journal

Vol. 84

MARCH, 1932

No. 9

THE WIDENING HORIZON OF CHILD HEALTH.*

W. W. BUTTERWORTH, M. D.,
NEW ORLEANS.

Opportunities, and the obligations that attach to them, have multiplied in every profession, but to no group has been given a more rapidly widening horizon than that which now unfolds to medicine. Not alone in the development of new specialties, but with recognition of new responsibility for racial health, the medical profession today faces problems that merit the thorough and thoughtful consideration of every physician.

In the single field of child health, note the growing responsibility that has been placed upon the physician. Many of us can remember when the sole objective of pediatrics was the recovery of the ill child. Then came the development of preventive pediatrics, the responsibility for keeping the well child, well. Followed to its logical conclusion, this led to the prevention of congenital diseases and of injuries at birth through adequate prenatal care and competent obstetrics. Today, the U. S. Public Health Service takes another forward step in studying the relation between prolonged and difficult deliveries and the subsequent mental health of the child. Members of the medical profession, as leaders in President Hoover's White House Conference on Child Health and Protection, have approved the Children's Charter which incorporates in its articles the broad and compre-

hensive rights of every child to enjoy good health. Are we not, in reality, faced today with the full responsibility for the mental and physical health of the race? Can any physician hope to meet this responsibility individually? Or shall we utilize the organized resources of the community, accepting as individuals and as a group, our responsibility for leadership in this growing movement for community health?

Medicine is an old profession, and generally revered because of the altruistic basis upon which it was founded. Before the nations were awake to their responsibility for public health, physicians, in the Hippocratic oath, obligated themselves never to refuse aid and succor to suffering mankind. Today that oath is still potent, yet shifting social conditions have somewhat changed the character of the need. Complex economic conditions make it increasingly impossible for individual physicians, through personal charity, to answer adequately even the needs of the sick poor for medical care, and beyond which now lies the community's need for the prevention of illness and the protection of health. Shall we not keep for our profession the enviable leadership which it has so long held by assuming in regard to public health the altruistic attitude which physicians have always rightly taken in regard to their personal charity? Shall we not recognize that professions, like individuals, reach stages in their development when a broadening policy and a clearing vision become essential to continued achievement? Today we are unquestionably facing such a period and our

*Read before the Louisiana State Medical Society, New Orleans, April 14-16, 1931.

attitude is being watched keenly by an interested and critical public.

Considered practically, what is society today asking of the medical profession? May we use, for illustrative purposes, the field of child health and the part the pediatrician of today should take in the life and welfare of his community.

In his private practice, he has assumed responsibility for positive and preventive pediatrics, for the care of the sick and for the protection of health. It is not only to his skill in the treatment of illness, but to his general knowledge of health and its requirements that the mother turns trustingly for guidance. It is the pediatrician who must teach the value of vaccination and of immunization, the importance of early and continued dental care, the significance of habit and environment and their bearing on later physical and mental life. But before he is able to teach these things effectively, he must first teach the basic lesson that every well child should be constantly supervised and regularly examined by his own physician. This is a lesson that is often misconstrued by the families whom it is intended to serve. Unfortunately, to the mother of limited vision, personal profit to the physician occupies the foreground and blots out the essential value of this protection to her child. How, then, may she be acceptably taught?

Here is a first point of contact between private practice and public health. The local health organizations are teaching through their clinics and through the press, through their lecture services and through their boards of directors, through their multiple contacts with the public that supports them, through all these sources they are constantly teaching the far-reaching value and human economy of early and repeated medical examinations. Mothers, always quick to protect their own, begin to ask if this service is not available to their children and through their physicians, and the way is open for the teaching of this

first and most important lesson. That the way has not been more generally open is perhaps due to us, as physicians. Should we not take a more active part in the health education of the community? Shall we not serve on lecture bureaus and on boards of public health agencies; shall we not encourage the younger men to serve on the staffs and in the clinics; shall we not make ourselves an integral part of the public health movement in our community?

May we examine for a moment the work of these public health agencies and their bearing on private practice? A primary object of public health is to supply without pauperization medical and nursing care to the underprivileged members of the community. The more progressive agency provides a modest remuneration in return for the services of the physician and to all but the actually indigent patient charges a small fee in proportion to the per capita income of the family. Note the significance of this arrangement. First, in the remuneration of the medical staff, there is effort to subsidize the free work of the physician which society has so long been accustomed to accept, even to demand, from the medical profession. Surely the cost of medical care, like the cost of food and cloth, should be supplied not by the members of a single profession, but by society as a whole. Should not the young physician, eager to serve, but himself financially handicapped, receive some assistance from society in his effort to protect the health of his community by teaching and treating the underprivileged group? And is it not an opportunity of the public health agency not only to supply this assistance, but perhaps to make wholly unnecessary any participation in the medical program on the part of the state? This is an aspect that warrants consideration.

To the older physician whose growing practice is somewhat hampered by the persisting demands of non-paying patients, whose vanishing leisure becomes a health

hazard the public health agency offers two services. First, they will accept and serve, free, or at a moderate cost, the non-paying patient referred by the physician. Secondly, where the personal tie between the physician and the patient is too strong to be broken, the agency will supply in that patient's home competent nursing service that will greatly lessen the mental and physical demands on the physician.

The cost of medical care is a phrase now frequently on the lips of the public, bandied about by the unthinking, offering a tool to the unscrupulous and looming as a new problem, to be faced and solved by the medical profession. An unquestionable factor in the cost of medical care is the uneven distribution of the physician's income. Today, to a very large extent, the cost of the care he gives to the poor is paid through the fees of the rich. So also do hospitals tax Peter to pay Paul. This, in a sense, is direct taxation, and rouses the protests that always follow that method of meeting the obligations of the community. Why should not medicine learn from the economics, and resort to the indirect method of taxation, by providing, for the complete cost of medical care to the poor, not from the medical fees of the rich, but through their voluntary giving to local charities? Again, the public health agency, by compensating its medical staff, may, in time affect this adjustment.

The president of the Orleans Parish Medical Association, in a recent timely interview with the press, brought out this cogent point: That any cost for medical care is usually not included in the family budget, although repairs to the automobile and upkeep for the radio is duly provided. Here, undoubtedly, is there need for public education, and perhaps for the formation of an official attitude on the part of the medical profession. It is of record that none of the budgets provided for the guidance of the working man's family include the item for health. Recreation,

moving pictures, are listed among the essentials, but it is taken for granted that medical service will be furnished by the medical profession without charge. Here, again, the interests of the individual physician touches the activities of the health agency. It is the public health agency that today is initiating the effort to teach families that health is purchasable, and should be purchased as a basic necessity. Babies, like books and pianos, can be bought on the installment plan, and paid for after delivery. Can the medical profession use the public health agency as a medium for teaching the public to budget for health?

In this regard, an interesting point has recently been made by a group of the national agencies. They point out that the budget for health should be high during the first year of life, decreasing somewhat to the fifth year and then dropping sharply, reaching a minimum from adolescence to the age of forty-five. Then the curve rises again, until for the old man of eighty, the cost of health is approximately as high as the cost for a baby under one year. The point is then made that the extension of life expectancy will be accompanied by an increase in almost unpreventable illness.

Apparently, then, preventive medicine, while protecting the race during its productive years, is not lessening the need for medical care, merely shifting the emphasis from the care of ill patients, to the prevention of illness and the preservation of life. Illness will not diminish until education becomes effective, but when education does become effective, the very volume of the preventive work will compensate for the diminished frequency of illness. Universal vaccination has proven better alike for patient and physician than the prevalence of smallpox. And again the gradual control of depopulating epidemics and the lessening of other physical handicaps will conserve life and strength and thereby increase both the number and the earning

power of potential patients.

We, as physicians, know that we have nothing to fear from the coming of preventive medicine. As individuals, the scope of our work will widen to include a growing volume of general physical examination, of vaccinations and immunizations, of the direction of the mental and physical habits of the child. As a group, we will eventually recognize and assume our responsibility for leadership in community health. From our local medical societies will come the demand for safe food supply, for the effective control of the venereal diseases and other racial scourges, for sanitary living conditions, for every protection that science affords to racial health. We will use and direct the organized resources of the community. From our own profession rather than from state or national sources will come the responsible scientific leadership for which committees and nations today are waiting.

DISCUSSION.

Dr. R. A. Strong (New Orleans): Concerning the widening horizon of pediatrics for childhood today, there have been so many things that have developed recently that it is extremely difficult to pick out the ones that are most important.

I have lived through a period when pediatrics was a specialty that was struggling for recognition. The progress that has been made in the past twenty years, however, has, perhaps, been greater than any other field of medicine. In the past decade there have been so many important things happening that it would take too much of your time and patience to enumerate them. I am going to touch upon a few of them briefly, however.

For instance, a better and clearer understanding of childhood tuberculosis has been spoken of as one of the greatest beacons in our fight against the white plague. It is generally conceded at the present time that the early detection of tuberculosis in childhood is the most important factor in the prevention of tuberculosis in adult life.

Notwithstanding the fact that it has been almost three hundred years since Glisson described rickets, most of our knowledge of rickets has been revealed in the past decade. Beginning with the work of Hess in New York who explained the value of sunshine, things have happened rapidly.

We have a clearer understanding of the vitamin D and the vitamin A, and the combination of the two in the prevention of rickets.

In the study of nutrition, Dr. Butterworth, I am sure, will agree with me there were days when we were floundering rather badly in the matter of infant feeding. That has received orderly study so that now we don't require a slide rule and an adding machine to feed a baby.

The prevention of diphtheria is another factor. It has been thirty-three years since antitoxin was developed, but it has been far less since we have been able to actively immunize children against diphtheria. As a result there has been a steady decrease in the diphtheria incidence curve in the United States. As a matter of fact, it shouldn't be as high as it is now with the facilities we have at our command to prevent and cure diphtheria.

The progress that has been made in the study of scarlet fever in the past few years is another outstanding example of why this world is rapidly becoming a better place in which to live.

The close affiliation between the obstetrician and the pediatrician has been another important factor in decreasing the mortality in early life. We now have the opportunity to study the newly born child as soon as it is born rather than have it turned over to us at the end of the sixth or eighth week when it is too late to do anything. We know about intracranial hemorrhage, for instance. Today it is entirely possible to do a cistern puncture, and feel that it has been instrumental in saving the lives of many children who would go through life as hopeless cripples and imbeciles.

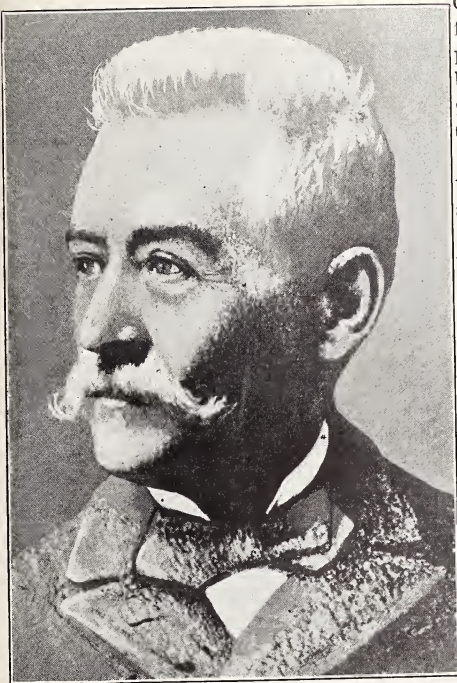
There is another very important thing I want to say in closing to indicate the advance made by the specialty. There has been a great growth in the pediatric sections. I can remember very distinctly, it has been scarcely fifteen years ago, when we petitioned the Southern Medical Association to create a separate section on pediatrics. We were told by the Council there was not enough men in the South interested in pediatrics to justify a special section. They gave us a section on probation for two or three years, and I am happy to say that section is without doubt the biggest section in the Southern Medical Association at the present time. So it has been in the American Medical Association. Last year we organized the American Academy of Pediatrics. It is growing vigorously. We have just had the White House conference on Child Health and Protection and tomorrow on the Gulf coast an American Pediatric Society will meet. All of this will indicate the extensive growth of the specialty of pediatrics in the past twenty-five years.

DOCTOR FREDERICK LOEBER:
1839-1901.

A. E. FOSSIER, M. D.,

NEW ORLEANS.

I would desire to speak simply and directly and with generous appreciation; yet with no idle flattery of one who was a great physician; one whose charity was his eminent virtue; one whose gentleness endeared him to the hearts of the poor as



DR. FREDERICK LOEBER.

well as the rich; one whose loyalty to his friends, to his patients, to his family, and as well as to himself was proverbial; one who, above all, was ever a gentleman.

I sha'll not on this occasion attempt a detailed narrative of the life of this distinguished man. To relate his history at length would be to relate that of medical

progress in this city, so I will enumerate those few leading points in his life and character for which he was admired, respected and loved by all who knew him.

Dr. Frederick Loeber was born in Giesen, Hessen-Darmstadt, in South Germany, on the second day of January, 1839. He was the scion of a family which had achieved considerable repute in public affairs, in literature, and in the Lutheran Church. He was the son of the Reverend Carl Loeber, a Lutheran minister, the fourth of his family consecutively to fill pulpits. Dr. Loeber's ancestors were numbered among the first proselytes of the great leader of religious reformation in Germany.

His classical education was acquired in the gymnasium of Giesen, where he showed a marked predilection for the study of chemistry. He graduated from that institution when eighteen years old.

Greatly to the disappointment of his parents he refused their request that he should study theology, having formed a taste for science and not for the pulpit. Lured by rumors of the wonders of the new country, he decided to immigrate to America. He landed in New Orleans just prior to the devastating yellow fever epidemic of 1858.

Immediately upon his arrival here he procured employment in the pharmacy of E. Goldman, situated at the corner of Dauphine and Louisa streets; shortly afterwards he was a pharmacist in the drug store of Dr. Czarnowski, of revered memory, then situated on the corner of Baronne and Poydras. He soon decided to branch out for himself and opened a pharmacy on St. Charles Avenue and Euterpe Street. It was at that time that he studied medicine. In the spring of 1865 he received his diploma from the New Orleans School of Medicine, when he was 26 years of age.

Spurred by great ambition and an insatiable love for knowledge, Dr. Loeber sold his pharmacy, and with funds realized therefrom, he returned to Europe to com-

*Read before the Orleans Parish Medical Society, June 22, 1931.

plete his medical education. He studied a year in Germany under the renowned Virchow, and a year in the clinic of Bilroth in Vienna, after which he returned to the city of his choice in 1868, to embark in the practice of medicine.

In November, 1869, he accepted the responsible position of chief house surgeon to Touro Infirmary, and of physician to the Hebrew Benevolent Association. This now reformed infirmary was then a relatively obscure institution of very modest proportions. The old Touro was at that time situated on the river, on the corner of Gaiennie and Levee streets. Its building was old and dilapidated, without beauty and without comfort.

His knowledge of anatomy and surgery gained the recognition of his colleagues, for shortly after his return from Germany, he was appointed to fill the chair of anatomy and clinical surgery in the New Orleans School of Medicine, his alma mater.

Dr. Loeber was not only an organizer of, but the first president of the New Orleans Medical and Surgical Association. He was also a founder of the Orleans Parish Medical Society. He was a member of the visiting staff of the Charity Hospital.

Despite the many arduous duties of a large practice and of the house surgeonship of a rapidly growing infirmary, this remarkable man found the time for public duties. He served during the years 1877 to 1881 as a member of the Board of Health of the State of Louisiana, and for many years after he resigned from that body, he was a member of its board of experts on yellow fever. A few years prior to his death he succeeded Dr. Shepperd as an administrator of the Charity Hospital.

Although he had very little time for social duties, he was a member of the Boston, Pickwick, and Harmony Clubs.

On October 18, 1901, Dr. Loeber was called to his heavenly rest. His demise was not only regretted but lamented by the whole community. He was survived by his wife, Catherine Humbrecht, and by eight children, two sons and six daughters.

Dr. Loeber was one of the most successful physicians of his time; his pleasant personality, his lofty character, his sympathetic nature, his love of charity, his devotion to his profession and his exceptional ability as a practitioner, commanded for him not only a large but a very lucrative clientele. All his worldly blessings, his well merited reputation, his exceptional success, were invariably accorded to him as his just dues, and he was one of the very few successful men who had the good fortune of commanding great eminence and wealth without arousing jealousy, envy and bitter enmity.

Our distinguished predecessor was a man of splendid physique, tall and well proportioned. He had a constitution of iron and he was an indefatigable worker; to those two qualities must be attributed to a large extent his unusual success. From early morn until late in the night he could perform the exacting duties of his profession and never tire, and frequently in the wee hours of the morning he would be found studying in his library, or consulting his many books and journals relative to some obscure, obstinate or difficult case. He was particularly well equipped for his life's work. His range in the various branches of medicine and surgery was wide and uncommonly extensive. His knowledge of chemistry and pharmacy, his unerring power of observation, his logical deduction and his "coup d'oeil médical" made him a diagnostician of great merit and a therapist of unusual ability. His knowledge of anatomy, his boldness, his judgment, his skill with the scalpel, withal his conservatism, places him in the highest ranks of the great surgeons of our Southland.

His contributions to medical literature are not as numerous as we would expect from one who had such wide experience and such an acute power of observation. Today we deplore that fact, because a wealth of material has been lost to the medical world. Dr. Loeber is not the only one of whom this can be said, because his distinguished contemporaries have also

been sinners in this respect.

Dr. Loeber has added brilliancy to that galaxy of distinguished physicians who by their skill, their learning and their renown have contributed so greatly to the greater honor of our fair city; nor was it among common and inferior minds that this man was pre-eminent: for among others I can mention, Luzenberg, Warren Stone, Faget, Smythe, Richardson, Joseph Jones, De-Roaldes, Miles, Chaillé, Souchon and Parham.

In 1873 a few of the most progressive and active members of the profession, smarting under the injustice and the contemptuous attitude of an oligarchy, composed of the older physicians and the teachers of the Medical School who controlled an association, which we are told, was based on a huge constitution, a lot of statutory laws, called by them a code of ethics and which was iniquitous and violative of every principle of even-handed justice, rebelled against the prevailing conditions and with the hope of accomplishing much needed reforms, established the New Orleans Medical and Surgical Association. These young doctors held their organization meeting in the home of Dr. Loeber. His was the distinction of being elected their first president. Their coup d'état liberated the profession from an obnoxious code of ethics which provided an immunity to a privileged coterie, whilst exerting unreasonable restraint on a less favored majority. For many years this association was the paramount medical society of this city.

Dr. Loeber was one of nature's noblemen; his personality was most pleasant, although when occasion demanded he would express himself in a blunt, decisive manner; but however terse may have been his expression of his conviction, his words were never inconsiderate. He was opinionated but not contumacious. His character was most lofty. He was at all times scrupulously ethical in his conduct towards his confrères. He was a man of great liberality. He never sacrificed principle for

policy. He excelled in that eminent virtue of the medical profession, charity. He was always the servant of servants in the cause of humanity, and in the declining years of his life he was ever ready to council his younger and less experienced colleagues in their perplexities.

Although Dr. Loeber was most retiring in disposition and at all times evaded public applause, he was thrice signally honored. He was decorated by the German Emperor with the third Order of the Crown, popularly known as the Order of the Red Eagle, for his faithful administrations to German subjects. He was presented with a superb gold medallion by the inmates of the Jewish Widow's and Orphan's Home, as a grateful tribute of appreciation for his tender care and devotion. And two years before his death he was the recipient of a loving cup from the Board of Administrators of Touro Infirmary.

On November 19, 1899, a memorable meeting was held at Touro Infirmary. The purpose of which was known to everyone save Dr. Loeber. Never was a secret so scrupulously kept, because had it been known to the distinguished recipient, his innate modesty would have deterred him from attending. On that notable occasion addresses were made by Rabbi Leucht and Dr. Joseph Holt. Whilst these discourses were highly eulogistic and most sympathetic in tone, they were a truthful, unexaggerated recital of his virtues, his labors and his accomplishments.

The learned rabbi, of beloved memory, paid this beautiful tribute to his life long friend, Dr. Loeber:

"I did not only find him the skillful and experienced physician, but the great humanitarian. He knew no distinction between poor and rich. Dr. Loeber's great strength was that he had the capacity of sympathizing with the sufferer.

"He was a spotless citizen and all offices of honor which he ever occupied he lent them a grace, and by his manhood, uprightness and outspoken candor, made himself a trusty servant to any task that was

imposed upon him. The principal trait of his character was in his sense of duty, which he never failed to fulfill under all circumstances, and the higher honor of his profession, of which he was a master, he exhibited on all occasions. His sweetest characteristic, however, was that he knew how to be a friend.

In this connection he may have a peer, but no superior."

And again, his intimate friend, who not only knew him well, but appreciated his virtues, Dr. Joseph Holt, spoke this beautiful eulogy:

"You ask me to disclose the secret of his success? I tell you, Loyalty by nature, loyalty to truth and to all the principles of mankind; loyalty to the plow set to the furrow; loyalty to his profession, to his friends: loyalty! this is the hereditary seal; the Lord's mark set upon him. Bearing this sign, he entered this world, and under this sign he has conquered."

The magnificent loving-cup was presented to him as a testimonial of gratitude for thirty years of faithful and successful services to the institution. "Your life and your growth" spoke Dr. Leucht, "have been the life and the growth of this institution, and I cannot think of one without thinking of the other."

This testimonial bore the following inscription:

"Presented to Doctor F. Loeber on the 30th anniversary of being chief surgeon of the Touro Infirmary by its grateful members. November 1899."

This cup is the most treasured possession of his family.

This honor was a sunbeam of happiness to warm the soul of one whose only pleasure was in the performance of his duty; although it is true that, "great minds, like heaven are pleased in doing good," yet:

"Oh popular applause! what heart of man
Is proof against thy sweet, seducing
charms?"

As long as Touro Infirmary will exist the memory of Frederick Loeber will be perpetuated. Although this institution bears the name of that famed philanthropist Judah Touro; although the legacy of that great benefactor was the seed from which sprung the present institution, yet, all honor and credit must be given for its existence today to the organizing genius, the unswerving devotion and the tireless labors of Doctor Loeber.

If it has reached the present high plane of its efficiency; if it has weathered the storm of its early existence; if it has grown from a modest beginning to a leading place among similar institutions in the south; if it is today a temple of medical lore and scientific advancement; if it is renowned for its charity and its devotion to the poor, it is because of the vision, the judgment, the labors, the inspiration, the ambition and the determination of Frederick Loeber.

Rabbi Leucht in presenting him with loving cup said:

"Ah, dear Doctor, how must your heart be filled today with pride to cast a glance yonder beholding the Touro, its free clinic, its model school for nurses—All the fruits of your endeavor, and I will with all my heart congratulate you that it has been granted to you to behold during your lifetime the ripe fruits of your labor here on earth."

The name of Touro Infirmary and Frederick Loeber are so closely welded together that it is impossible to mention the one without thinking of the other.

In these our feeble services of commemoration, we set forth not his worth, but our own gratitude. His life was one of service to his fellow men. The sloven garret or the dusty cellar of the pauper as well as the gaudy chamber of the opulent were equally the beneficiaries of his healing art and his tender devotion; the city and the state of his adoption profited by his gratuitous services; medicine was enriched by his laudable example,

his love for his profession, his knowledge and his great experience; his friends basked in the warmth of his friendship and his family rejoiced in the love of a devoted father. He has imparted an untarnishable luster to the escutcheon of a noble profession.

"Yes, life at best is but the vapor that passeth away. The glories of our birth and state are shadows, not substantial things. But when death comes, what nobler epitaph can any man have than this, that, having served his generation, by the will of God he fell asleep."

A WORD CONCERNING ELLIOT'S TREPHINE OPERATION*

H. DICKSON BRUNS, M. D.†‡

NEW ORLEANS

A recent paper by the Drs. Green, of San Francisco, tempts a comparison with an earlier one by Dr. W. H. Wilmer, of Baltimore, to appraise what we do and to distinguish what we do not presently know of the operation proposed by Major Elliot for the arrest of glaucoma. Both papers are especially valuable because they recite the personal experience of their authors. Dr. Wilmer's paper, though not long, is the more comprehensive; he presents four statistical tables, describes some experiments upon lower animals, compares many of the decompression operations, gives a summary of his reflections upon them, and supplies a bibliography of six pages.

We are at once struck by a point of difference between the authors that stares at us from their pages. Dr. Wilmer says, "at the time of operation complete iridectomy should be performed in all sclerectomies." He emphasises this in reciting the causes of

complications in trephine operations "there is failure to perform complete iridectomy, with the possibility of later iris prolapse or severe iritis," and one of his figure shows a large surgical coloboma. The Drs. Green on the contrary urge the advantage of small and peripheral iridectomy. They state that on looking up the statistics of their own Elliot operations from 1911 to the present day they found, in the first place, that the Elliot gave slightly better results when compared with other decompression operations done by them. They found further that "the results were better during the earlier than during the later years of our practice." From all considerations they concluded that this was due to the iridectomies being small and peripheral in their earlier days. They confess that later they were following authority and trying to make free thorough iridectomies and the small and peripheral iridectomies were due to "accident, inexperience, and timidity." Three patients were found who had had both eyes operated on. In one eye tension was permanently reduced by one operation while the other eye required several. "Investigation revealed the fact that when success was obtained the iridectomy was invariably small and peripheral, so that it was almost invisible." It may take many observers and long experience before the question raised can be settled definitely. Meantime the present reviewer can add his testimony to the demonstration that iridectomy is not necessary. In a goodly number of cases when he first did trephine operations he made only a simple linear cut through the iris by snipping the knuckle of this membrane presenting in the trephine hole in a direction parallel to the radial fibres. One of the cases operated on in this way, W. L., remained under observation for the rest of his life, fourteen years. The radial cut in the blue iris could be made out as a dark line extending from the upper border of the sphincter to within a mm. of its periphery. The ophthalmoscope showed by a narrow red reflex in the same situation that the thickness of the iris had been cut

*Read before the Louisiana State Medical Society, New Orleans, April 14-16, 1931.

†This little paper was begun about a year ago, but was interrupted by long illness. As even the slightest detail looking to the perfection of the operation is of importance in the desperate fight against glaucoma, I publish it.

‡Late Surgeon-in-Chief, Eye, Ear, Nose and Throat Hospital.

through. The eye was a blind one, but it remained painless without elevation of tension and unchanged in appearance to the end. In none of the cases in which simple iridotomy was done were there any unusual happenings. If iritis came on, it ran its course quickly and harmlessly owing to the full dilatation of the pupil maintained by atropine. The Drs. Green go on to say that for the past six months one of them has been doing the peripheral iridectomy while the other was doing a peripheral iridotomy as a control and when possible on the other eye of the same patient. Iridotomy is easier to perform and its results have been as good if not better. With the present technic their operations have been successful in more than ninety per cent. Dr. Wilmer gives his percentage of success as eighty-eight in one hundred and seven cases observed from four months to fifteen years and including twenty-nine secondary cases. It is interesting to see how close are these percentages of the Baltimore and of the San Francisco operators.

The demonstration that atropine may be used immediately after decompression operations and continued until all symptoms of iritis or even irritability of the iris have passed seems to us of as great a boon to our practice as the Elliot operation itself.

In all of his old cases of sclero-iridectomy made according to the directions of von Graefe, which the writer was able to examine years afterwards, posterior synechiae and abundant pigment deposits upon the lens capsule were found. At the time these operations were done there was no stronger surgical dread than that aroused in the mind of the oculist by the juxtaposition of the words glaucoma-atropine.

Dr. Wilmer's criteria of relief or arrest of the disease seem satisfactory though it is unwise, perhaps, to associate with it any supposedly indicative number of millimeters of mercury on the tonometer scale. Some cases of simple glaucoma will show readings of even 14 mm. when first seen.

Hypotony following the operation is one of the grave dangers because it is so difficult

to combat. It cannot be too often repeated, this writer believes, that in these early cases of simple glaucoma of dubious diagnosis a constant difference of a few millimeters of tension between the two eyes is on the tonometer of much more importance than a trifling elevation above an arbitrary maximum.

The Doctors Green use a 1.5 mm. trephine, a one millimeter bore being used in cases with very high tension. The writer agrees with Dr. Wilmer in preferring a 2 mm. instrument but should any change be required might try a 1 mm. bore in cases with unusually low or unusually high T. Here again, however, a longer or wider experience is needed, though the Drs. Green's statement is valuable. To this writer, however, carefully taken fields of vision are more important than tonometer records. Valuable as the tonometer may be we could still rely upon trained fingers for estimating tension if we were provided with carefully taken fields of visions. For fields confirm or deny the diagnosis, show the amount of damage done by the malady and afford the best foundation for a prognosis. It must not be forgotten that glaucoma is never cured, not even completely arrested; that is to say, if the patient lives long enough in spite of diminution of tension we find the sight, after some years, gradually failing; if we can exclude cataract, apparently from optic nerve atrophy. This has been true after every operation of which we have had long and ample experience. Whether operations consisting essentially of sclerectomy will succeed in absolutely arresting glaucoma time must tell (Fuchs).

This cause of failure, however, is remote and unlike loss of vision from cataract, so common in these cases. This early appearance of post operative cataract is one of the commonest and more immediate, as well as one of the cruellest, disappointments to patient and operator. Both may well dread an extraction following upon the heels of the decompression operation. Among Dr. Wilmer's patients 57 of a

series of 72 Elliot operations had later to have a cataract extracted. In 28 eyes, he says, there was incipient or immature cataract at the time of operation. There is no doubt that cataracts would often be found were we not unfortunately precluded from close pre-operative search for cataracts by many obstacles. Unfortunately, because their discovery would absolve us from later coming doubt of having injured the lens capsule during the decompression. This frequent presence of cataract in glaucomatous eyes seems to the writer the argument in favor of a large and complete iridectomy in the Elliot operation. It would seem an advantage also in the many secondary glaucomas, due to cementing of the iris to the anterior capsule as the result of an old iritis. This, and indeed the whole question of the superiority of modern sclerotomizing operations over the old classical sclero-iridectomy, must remain upon the knees of the gods until time has more exactly equalized our experience with the two. So also must the details of adhering with Elliot to making the "hinge" of the trephine button on the scleral side or changing it with Green to the corneal side of the trephine opening; and the success *vel non* of Dr. Wilmer's closure of a perforation of the conjunctiva over the trephine hole by sub-conjunctival grafting of a piece cut from the capsule of Tenon.

Finally, the writer may say that his experience with post-operative intraocular infections agrees with that of most American operators. He can recall at present having seen but three cases and one he is convinced was deliberately brought about by the patient. In the two other instances one eye was saved and another greatly improved by the use of intramuscular milk injections.

The writer does not prescribe the post-operative use of antiseptic drops. In the first place, the strength in which the antiseptic can be used is too homeopathic to capture his confidence; yet, weak as it is,

its long continued use is likely to irritate the conjunctiva. The cleansing and refreshing, borax, boracic acid, camphor water mixture we know as B. and C. is free from all objections; and being agreeable, too, is more likely to be used. All who have worked for more than a short time in free clinics are without faith that any remedy save in exceptional cases will be used over any length of time.

DISCUSSION.

Dr. Victor Smith (New Orleans): In my rather limited experience with the Elliot trephine operation for glaucoma I am in accord with the statements made in this paper.

I have not found that the size of the iridectomy appeared to have any effect on the end result. I can now recall quite a few cases where I have operated on the same patient, making a large iridectomy in one eye, a small one in the other eye and have had an equally satisfactory result in both eyes. I am of the opinion that if there is an opening of any size between the anterior and the posterior chamber, the result will be satisfactory as tension reduction is accomplished by the filtration bed rather than by the size of the iridectomy. I have preferred the $1\frac{1}{2}$ to 2 mm. trephine as recommended by the author as giving the best results. It is advisable that the conjunctival flap near the limbus be as thick as possible to minimize fistula formation. In quite a few of my cases I have had pronounced symptoms of iritis immediately following the operation. I have never hesitated in these cases about using atropine which usually gives immediate relief and at the same time has not given the disagreeable results one would be inclined to expect where atropine is used in an eye that has symptoms of glaucoma.

I have a few cases under observation for ten or more years since the operation and the vision has apparently remained stationary.

There has been the usual percentage of disappointments mentioned by Dr. Bruns, namely, lens opacities following the operation, and in some cases a marked slowing down of the loss of vision, but nevertheless a progressive failure of vision was noted in spite of the control of the hypertension by the operation. This loss was apparently the result of atrophy of the optic nerve.

I agree with Dr. Bruns that a careful study of the field of vision is more helpful to decide on the need of an operation and on making the diagnosis positive rather than depending on the amount of tension by the tonometer.

In chronic simple glaucoma, my experience has been that the Elliot operation is the most satisfactory of all operations and seemed to give more

lasting results than any other operation done at present. Although easy of performance, its limitations and the liability of late infection and uveal disease reminds one that no ideal operation for glaucoma exists.

Dr. Hans Schroeder (New Orleans): So-called modifications and improvements are every once in a while brought out by someone who apparently wants to get his name before the profession and fill the pages of the various journals.

Elliot's trephine operation is no exception and experience shows that these modifications in time have all been discarded again and only have academic interest; Elliot's modification being the "old reliable" followed.

It seems to me it is about like arguing whether it is better to get out of bed with the right foot first or with the left one. All these modifications are individual preferences in the technic of the surgeon. You get the best results with the operation you do most often and study most.

Glaucoma is a protean disease, the etiology of which is unknown, and we probably class by this name a group of diseases with similar symptoms. For this reason statistics are misleading.

The symptomatic relief obtained runs from 70-85 per cent in European clinics; so-called cure only 32.5 per cent. The trouble is that you cannot follow a sufficient number of cases long enough. The number of cases is not sufficient to give the various procedures an equal chance from a statistical point. So the matter resolves itself again in individual preference and experience with a single technic.

Atropine immediately after the operation is considered safe in European clinics and routinely used.

The usual trephine opening over there is 1.5 mm., since the 1 mm. one produces an iris prolapse too small for the basal iridectomy. The 2 mm. opening is not considered as safe, since the filtration cushion may become too large and late infection, the bugaboo of these operations, is more likely to occur, though this takes place in 2 per cent of these cases.

However, miotics should be given a fair chance before considering any operation whatever, and if they will keep down the tension their continued use is indicated and the patient should be spared any operative interference.

Dr. W. R. Buffngton, New Orleans (closing): This operation is very successful when applied to white patients and we have had a high percentage of successes with it, but the same facts do not hold true in regard to the colored race. We have done it frequently in negroes, for the same type of pathology and with exactly the same technic, and we have had many failures. The immediate result is good but the glaucomatous tissue recurs shortly, and it is evident that some other procedure will have to be employed. Recently we have been

doing iridodialysis on blind eyes, and we shall report our results later.

One thing I might add is that I operate for simple glaucoma in elderly people just as little as I possibly can. If I can control tension and keep the field of vision stationary, I never operate if operation can be avoided.

THE DIAGNOSTIC IMPORTANCE OF ROENTGENOLOGY IN MEDICINE.*

LEON J. MENVILLE, M. D.,

NEW ORLEANS.

The discovery of the roentgenray by Conrad Roentgen in 1895, gave to the medical profession an agent of precision that was to become one of the most important adjuncts in the diagnosis and treatment of disease.

In the early period of roentgenology extravagant claims were made for the roentgenray by enthusiastic individuals which were not based on scientific facts, and because of the lack of knowledge of its dangers, cases of dermatitis and even severe burns were reported. This caused the medical profession and lay people to not only lose confidence in its use, but occasioned grave fear for those upon whom it was applied. This feeling of distrust for the roentgenrays was transient, as careful scientific investigations, by the better informed roentgenologists with improved technic and standardization of the work, soon restored the confidence of the medical profession.

Some physicians are not well informed as to the limitations and indications of the roentgenray in its application to medicine; they believe that because the roentgenologist makes a diagnosis from films upon which are impressed shadows, the diagnosis must therefore be rather unreliable. Then again, there are some who believe that because a roentgenray apparatus is a mechanical contrivance, it is only necessary for the operator to press a button and the resulting roentgenogram will come out with a printed diagnosis.

*Read before the Louisiana State Medical Society, New Orleans, April 14-16, 1931.

There are many reasons for this confusion. The most important of these is inadequate knowledge on the part of certain roentgenologists of the limitation of the roentgen-ray. These men have made exaggerated statements regarding its use, which often were not founded on radiological science. However, the majority of physicians appreciate its usefulness when employed by a competent specialist in this field.

With the recent tendency to give Radiology its proper position in medical education, there is little doubt but that much confusion of knowledge of this subject will be relieved. Without any intention of training students as specialists in radiology, many of the leading medical schools are demonstrating the applicability of this branch to medicine, just as is done for pathology, biochemistry, physiology and the like.

When roentgenray examinations were first used in medicine, their application was principally in cases of fractures, dislocations and detection of foreign bodies. The technic required at this early period was at first difficult and the diagnosis easy. At the present time the technic has become easy and the diagnosis more and more difficult. It is possible for any one to learn roentgen technic in a few months, but the art of proper and conservative roentgenray interpretation is required only by years of special training and extensive experience. A butcher might be a skillful carver but in spite of his technic would become dangerous with a surgeon's knife in his hand. In a similar manner a physician possessing roentgenray equipment and having acquired a reasonable, efficient technic cannot be qualified as a competent roentgenologist.

The field of roentgenology has become so great that it will soon be necessary to divide it into different specialties. It has long since been found necessary to specialize in many fields of medicine in order to obtain properly concentrated knowledge; likewise in a continuously expanding field such as roentgenology, with new facts con-

stantly being discovered, it has become almost imperative to specialize if we wish to keep abreast of its progress.

In the diagnosis of disease, the roentgen-ray occupies a place of importance and when used in conjunction with physical signs, the percentage of correct diagnoses is tremendously increased. In fact, it has been instrumental in a better understanding and interpretation of physical signs. Fales¹ says: "More has been accomplished in the proper interpretation of physical signs since the introduction of the roentgen-ray than has been accomplished previously in a century of experimentation. The roentgen-ray has aided us in the interpretation of râles. The study of many pulmonary stereoroentgenograms showed us that râles were often extensively present when there was no pulmonary infiltration."

We shall describe briefly the use of the roentgenray in the different branches of medicine. It has a wide application in the diagnosis of many diseases occurring in all the fields of medicine but time and space will permit us to mention only the most important features. The present paper considers only the diagnostic phase of this subject and no allusion is made to the extensive field of therapeutics.

THE RESPIRATORY SYSTEM.

The application of the roentgenrays in the diagnosis of early pulmonary tuberculosis is at present accepted as the best single method in use, and in order that its importance in this regard be further appreciated, I will quote briefly from a recent article by Homer L. Sampson and Lawrason Brown² on "The Value of Roentgenologic Examination in Pulmonary Tuberculosis" in which the authors say: "At the Trudeau Roentgen Laboratory, during the last seventeen years, some 50,000 stereoscopic plates and films of the lungs have been taken." In their article they answer the following question, "Do changes on the films precede those detected by the usual methods of physical examination?" "In the first place," say the authors, "We believe that the time has come

when we must insist that no patient has been completely examined until the films have been carefully gone over. . . We think we can categorically say that in a surprisingly large number of cases, definite changes characteristic of tuberculosis occur in the film long before definite evidence of abnormal physical signs can be detected." The following is a report made by them. "The incidence of the five cardinal diagnostic data in the 1367 cases diagnosed pulmonary tuberculosis from 1478 consecutive cases in the Trudeau Sanatorium are as follows:

	Per cent.
Tubercle bacilli.....	61.5
Râles	68.5
Hemoptysis	33.5
Pleurisy	12.0
Roentgen-ray	99. +

It is evident, therefore, that at the Trudeau Sanatorium the roentgenray is considered an agent of precision in the diagnosis of pulmonary tuberculosis.

There are many lung diseases other than pulmonary tuberculosis which are capable of being diagnosed with the roentgen-ray. The most important are:

- Pneumonia.
- Pleurisy.
- Interlobar and diaphragmatic pleurisy.
- Abscess of lungs.
- Bronchiectasis.
- Pneumoconiosis, anthracosis, etc.
- Primary tumors.
- Metastasis of malignant tumors.
- Foreign bodies, etc.

The recognition of certain disease of the trachea and bronchi is now possible by the injection of an oily substance opaque to the roentgen-rays. Forestier³ was the first to discover that when lipiodol was injected into the trachea and bronchi, the dilatations and sacculations produced by bronchiectasis were clearly discernible. Ochsner⁴ has devised a certain refinement in technic which has made the method of examination not only very popular and reliable, but also an indispensable method of diagnosis.

ALIMENTARY TRACT.

For many years substances opaque to the roentgenray were used to outline the stomach and intestine of patients suspected of having lesions of this tract. At the present time barium sulphate is used routinely in the roentgenray examination of the gastro-intestinal canal and this procedure has proven not only reliable but indispensable in the diagnosis of lesions of this tract. Several years ago Russell Carman of the Mayo Clinic reported that in a series of several hundred cases of peptic ulcers roentgenologically diagnosed which went to operation, the roentgen findings were confirmed in 98.21 per cent. There are many diseases of the stomach and intestines in which the roentgenray play an important part in the diagnosis. The following are some of the most common of them:

Stomach

- Gastric ulcer.
- Carcinoma (early).
- Linitis plastica.
- Syphilis.
- Obstructive lesions at the outlet.
- Gastro-jejunal ulcers.
- Diverticula.
- Gastric polyposis.

Small Intestine

- Ulcers (especially of duodenum).
- Tumors.
- Obstruction.
- Diverticula.
- Tuberculous enteritis.

Colon

- Cancer.
- Diverticula.
- Tuberculous enteritis.
- Chronic ulcerative colitis.
- Polyposis of colon.
- Transposition.
- Hirschsprung's disease.
- Fistulæ of colon.

GALL BLADDER.

A few years after the discovery of the roentgen ray, certain investigators reported a small percentage of gall stones diagnosed with the roentgenrays and in a few

instances, a large gall bladder filled with inspissated bile or with markedly thickened walls, was visualized. Graham, Cole and Copher⁵ discovered an opaque dye, which when administered either orally or intravenously, made possible the visualization of the gall bladder and permitted a study of this organ in a manner similar to that of the stomach and intestines. This method of examination has rendered it possible to diagnose certain diseases of the gall bladder and has also increased the percentage of correct diagnoses of biliary calculi.

GENITO-URINARY TRACT.

In the genito-urinary field the roentgen-rays have for years been used as an aid in the diagnosis of disease affecting this region. Kidney, uretral and bladder calculi can be visualized with the roentgenray in nearly every case, with the exception of pure uric acid calculi, and they are considered rare. An important discovery during the last year was that of uroselectan,⁶ a substance opaque to the roentgenray. When administered intravenously, the kidney pelvis, ureters, and bladder are readily visualized. In this manner tumors, ureteral kinks, diverticula, etc., are easily demonstrated. While this method perhaps will never displace the injection of sodium iodide directly into the kidney pelvis, it is however, a distinct step forward. It is particularly indicated in the examination of the kidney, ureters, and bladder where pyelography is impractical because of stricture or kinking. It has, however, its special application in the examination of the genito-urinary tract of infants and children.

OTO-LARYNGOLOGY.

The examination of the different sinuses by means of the roentgenray is frequently employed as an aid in the diagnosis of lesions of these areas. Diagnosis of hyperplasia and opacities produced by fluids are readily made. Polyps are often shown in the sinuses by means of the roentgenray which escape detection by other methods of examination. A very important use of the roentgenray to the oto-laryngologist

is the examination of the mastoids. Mastoid disease is often demonstrated in its early stage by the roentgen-ray, and often long before evidence of destruction of cells is present.

ORTHOPEDICS.

Bone and joint infections along with bone tumors lend themselves readily to being diagnosed by the roentgenray, which serves as an aid of tremendous importance to the orthopedist. In this connection, however, it should be mentioned that in acute osteomyelitis it is unwise to wait for the bony changes that might be shown by the roentgenray to establish a diagnosis, as the disease will have gained too much headway. Fractures, dislocations, and their reductions constitute important considerations for the orthopedist, and without the use of the roentgenray in such conditions, satisfactory results can not usually be obtained.

NEUROLOGY.

Tumors of the brain are in certain cases diagnosed radiologically. Pituitary tumors as an example, are diagnosed by the changes they produce in the sella turcica due to the pressure of these tumors on its bony structure. Ventriculography is another method which materially helps in the diagnosis of brain tumors. Changes in the bones of the skull from intracranial pressure, and also other bone changes as the result of syphilis, malignancy, etc., which have a direct bearing on neurological problems, are clearly demonstrated by the roentgenray.

OBSTETRICS.

The roentgenray is widely used in this field of medicine to determine early pregnancy, and its application is particularly important in making a differential diagnosis between pregnancy and tumor formation. In the instance of suspected twin pregnancy, it will not only clearly demonstrate the two fetuses but will render valuable information as to their position, and in certain cases determine whether they are living. In the measurements of the pelvis the roentgenray will give accurate

information that would otherwise perhaps be difficult.

PEDIATRICS.

The use to which the roentgenray is employed in the examination of the chest of adults applies also to that of infants and children. Its most frequent application in infants is in the diagnosis of suspected enlarged thymus gland. Kidney, ureteral and bladder examinations and also the examination of the gastro-intestinal tract are conducted in a manner similar to that of the adult. The application of the roentgenray in detecting early bone changes in rachitic infants is of great importance. Recent experimental work on the motility of the gastro-intestinal tract of rachitic rats has been reported.⁷

GYNECOLOGY.

The advent of the pneumo-peritoneum method of examination has proved of great value in outlining tumors of the uterus and certain diseases of the adnexa and has made possible certain diagnoses that would otherwise have been difficult and sometimes impossible. The introduction of material opaque to the roentgenray into the uterine cavity and its adjacent structures has proven of considerable assistance in the diagnosis of disease affecting these organs. The roentgenray is often used by gynecologists in helping to make a differential diagnosis of right sided pains.

CARDIOLOGY.

The fluoroscopic examination is frequently made use of by the cardiologist in the examination of certain diseases of the heart and large blood vessels. By this method of examination, alteration in the size, shape and position of the heart is observed. Any abnormal dilatation of the aorta, accompanied with increase in the amplitude of pulsation, and the presence of expansile pulsation are some of the important observations made with the fluoroscope. The measurement of the different diameters of the heart is accurately made from roentgenograms taken seven feet from this organ and such a procedure is considered as an important part of a heart examination.

CONCLUSION.

In conclusion, it is appreciated by the writer that much of the data contained herein are familiar to all. In the pursuit of the specialty of radiology, however, one cannot but realize that the scope and application of this branch is not always fully understood by the practitioner. The purpose of these few notes has been to call attention, in gist form, to the important assistance afforded by this method and to show that constant investigation is augmenting the possibilities in this field. It is often evident that too much information or too little is expected from the employment of this specialty. In this connection, it can be stated that the radiologist should serve as a consultant in the various fields of medicine wherein this branch may be applied. It becomes his clear-cut duty to explain distinctly and honestly, the extent to which his specialty may serve in the given case. He should make no unjustifiable assertions and above all else should be most conservative and careful in his interpretations.

REFERENCES.

1. Fales, Louis H.: U. S. Vet. Med. Bulletin, 4, 1923.
2. Sampson, H. L., & Brown, Lawrason: Am. Jour. Roent. & Rad. Ther. 25:209, 1931.
3. Sicard and Forestier: Methode generale d'exploration radiologique par l'huile iodee injections lobaire. Bull. et mem. Soc. Med. d. Hop. de Paris, 46:463, 1922.
4. Ochsner, Alton: Introduction of contrast media into the tracheo-bronchial tree. Wis. Med. Jour. 25:544, 1926.
5. Graham, E. A. and Cole, W. H.: Roentgen examination of the gall bladder. Jour. Amer. Med. Assoc. 82:613-614, 1924.
6. Von Lichtenberff, A., and Swick, M.: Klinische Purfung des Uroselectans. Klin. Wchnschr. 8:2089-2091, 1929.
7. Menville, L. J., Blackberg, S. N. and Ané, J. N.: Experimental studies of motility of gastro-intestinal tract of rachitic rats by means of the roentgenray. Radiology, 15:123, 1930.

DISCUSSION.

Dr. A. Jerome Thomas (Shreveport): Dr. Menville says that a good technician can be turned out in a course of a few months, but I cannot agree with him. The technical part of the work is extremely important, especially in the light of modern developments. It will require many months to train a technician to do high class radiographic work. It is necessary to have good radiograms for all diagnostic work as the pathological evi-

dence is registered on the film. If the radiograms do not show the proper contrast in radiographic density, with the maximum detail and the minimum distortion, then they are not satisfactory, and should be made over. As the registered evidence may be misleading or the pathology may be present in the patient, but due to the defective radiographic technic may not be visualized on the radiogram, if the radiograms are defective it is impossible for even the most experienced radiologist to make a correct interpretation. If he gives any conclusions under such conditions, they are often misleading. The following are a few conditions that improved radiographic technic have made possible of diagnosis.

Arterio-sclerosis can be demonstrated in its early stages, at a time when clinical symptoms are misleading and indefinite. Many intra-abdominal lesions can be visualized on the radiogram without using any contrast medium or gas inflation of the peritoneum. Lacerated muscles of the extremities can be visualized on the radiogram. This is very important in medico-legal cases. Early pregnancy can be demonstrated, in some cases as early as the sixth week, and should be visualized in the average case many weeks in advance of the positive clinical signs of pregnancy. Positive evidence is shown in all cases in which the embryonal markings have sufficient density and calcium content to be opaque to roentgen-ray energy.

Dr. D. L. Watson (New Orleans): Dr. Menville has brought out many points of value in the use of the roentgen-ray in our diagnostic work. I appreciate all he has said, not only as our able radiologist, but more especially as a valued friend.

However, the family physician has the advantage of the radiologist, in that he has a more extended observation of the case. This is more especially true of tuberculosis. The clinical symptoms which are frequent colds, loss of weight and strength, slight temperature, easy perspiration and low blood pressure are always present long before there can possibly be any pathological change in the lungs. These changes are absolutely essential before the radiologist can make a diagnosis. This is also true of the physical findings and the finding of the pathological laboratory. The negative findings of the radiologist and pathologist are not conclusive in diagnosing pulmonary tuberculosis. An early diagnosis is essential in the treatment of the disease.

Dr. H. W. E. Walther (New Orleans): I should like Dr. Menville to give us his opinion of the value of uroselectan in outlining the urinary tract, after intravenous injection. Personally, I think it has a very limited sphere. In obese patients, no matter what the radiologic technic is and no matter how careful the preparation is, the results

are not going to be good. In advanced kidney pathology it fails to outline the organ. If uroselectan does not bring out the ureter outline I see no advantage in it, for the primary lesion of the urinary tract is often located in the ureter.

Dr. S. C. Barrow (Shreveport): I always try to get one point before a mixed meeting such as this. Let me remind you that Dr. Carman many years ago reported on his duodenal ulcers from the Mayo Clinic that his diagnosis was proved correct at operation in something like 98 per cent of all cases. That fact is generally known, but another statement of his is rather generally forgotten, that he did not begin to achieve these results until he divorced himself from the clinician in his study of the films, that is, until he made up his mind for himself.

I beg you men who are clinicians to permit the radiologist to give you an honest diagnosis. For my own part, I can give it only when I do not know the facts of the case, when I have only the films to go on. If I know that a man has the classic symptoms of ulcer, because I am human I have the tendency to see in the deformity on the plate a gastric ulcer and I make that diagnosis. If I do not know the clinical history, I may arrive at a totally different and more correct conclusion. I want to consult with the clinician after I have read the plates but not before, and I think if clinicians and radiologists did their consulting last instead of first, the results would be better for the patient.

Dr. L. J. Menville (closing): I still contend that an intelligent individual, with proper environment and supervision, can be made into a good technician in a comparatively short space of time. I am not minimizing the value of a good technic, and it is an excellent thing if the radiologist can be his own technician, but that combination is rarely possible for a busy man. I am sure, I did not understand Dr. Thomas to say that he had developed a technic for the demonstration of soft tissues. He probably meant that he had improved on soft tissue technic. Dr. Chas. Sutherland of the Mayo Clinic, 8 years ago, demonstrated soft tissue tumors by a special technic. Such a technic is now a routine procedure in all roentgen-ray laboratories. And do I understand that it is possible for him to diagnose acute osteomyelitis in the first stages, before bone destruction has occurred? In my paper I warn the clinician against waiting for a roentgen-ray diagnosis in these cases, because often life is the price of such delay. Osteomyelitis is a hematogenous disease, bone destruction is a terminal process.

Uroselectan is distinctly valuable, as a diagnostic agent, in infants and children in whom cystoscopy is often impossible. I don't believe it will ever supplant the established methods of the in-

jection of opaque material directly into the kidney pelvis but it has a distinct field of usefulness.

Dr. Jerome Thomas, Shreveport, (replying to Dr. Menville's question): A negative report from the radiologist in acute osteomyelitis should have no clinical value for the surgeon. The following technic should demonstrate the lesion before bone destruction has occurred. Immobilize both extremities in examinations of the leg. The focal spot of the roentgenray tube should be centered at a central point between both legs, placing a lead marker to identify the right and left limbs. Use a very low voltage and a long exposure time without using any intensifying screens. If your radiographic exposure and dark room factors are correct, the radiographic production will show the maximum bone detail and definition and by comparison of the affected bone with the unaffected bone of the opposite limb there will be some difference in the bone density and markings, proportionate to the degree and extent of the infection. The roentgenograms should be used in correlation with a careful clinical examination, and the bone showing abnormal density and abnormal markings will also show tenderness or pain on pressure. If the patient has a high temperature with leukocytosis and high polymorphonuclear differential blood count, then you have positive evidence of an active osteomyelitis before any bone destruction has occurred, and an immediate operation is justified.

HEADACHES OF GASTRO-INTESTINAL ORIGIN.*

DONOVAN C. BROWNE, M. D.,

NEW ORLEANS.

Probably no one symptom is more frequently encountered in general practice than is headache. This holds true certainly for the gastro-enterologist, but although the headache may dominate the clinical picture, it is usually only one of a group of symptoms which brings the patient to the physician. The frequent association of head pains with nausea, vomiting, and other digestive disturbances, often leads the patient to assume falsely that the trouble is of primary gastrointestinal origin. Headache as a symptom emanates from many sources of which the purely gastro-intestinal type, as a matter of fact, only constitutes a small group. It is important, therefore, that a comprehen-

sive study be made in every instance, and that the individual case be considered from every angle in order to determine the definite and exact etiologic factors involved.

At the present time, I wish to consider principally those headaches which do have their origin within the gastro-intestinal tract, although it is not always feasible to disassociate them from pathology in other parts of the body.

By what means head pain is produced, or through which avenues the impulse reach the localization points in the head, is not quite clear. The most plausible explanation from the viewpoint of the gastro-intestinal tract, is that we are dealing with absorbed circulatory toxins or else with reflexes which pass through the sensory fibres of the vegetative nervous system. As far as intestinal toxemia is concerned, this condition constitutes a widely accepted theory of the origin of a common type headache. The head pain, however, represents but one of the manifestations of a systemic toxemia, and is accompanied, as a rule, by other cerebral symptoms. No available proof has been brought forward, however, in reference to any specific toxin produced in the gastro-intestinal tract which has selective action upon the brain or the meninges. The headache of intestinal toxemia origin is usually bilateral and is described by the patient as a general pressure sensation or a dull ache, involving the frontal and temporal region, though it may be a distinct hemicrania as in migraine.

In what way, may we ask, can circulatory toxins act to bring about headache? They may act by direct irritation of the sensory fibres of the meninges or by vasomotor dysfunction which alters intracranial pressure. Hubert has demonstrated the existence of sensory nerve filaments in the small vessels of the brain, and it is possible that pain may be produced as a result of vasoconstriction with its effect upon these sensory endings. This theory certainly offers the most reasonable explanation.

*Read before the Louisiana State Medical Society, New Orleans, April 14-16, 1931.

ation for the pain of migraine in which the symptoms are clearly those of a vaso-constriction.

The reflex type of headache may be more easily explained, although the exact pathway by which the impulses reach the nerves of the head is often difficult to determine. These impulses from the viscera pass through the sensory fibres of the vagus and are reflected to the nerves of the head by means of the corresponding segmental centers within the spinal cord. As an example, lesions in the gall tract are referred through the spinal route to the seventh thoracic nerve and eventually upward through the trigeminus to the temporal region. These areas or zones of referred pain have been worked out by Head and others, and Behan has listed the pathway of the abdominal viscera to the nerves of the head in the following manner:

Area of Body	Associated Area on Scalp	Organs in Particular Relation With Those Areas
Cervical 3	Frontal Nasal	Apex of lung Liver Stomach Aortic orifice
Dorsal 7	Temporal	Base of lung Heart (auricles) Stomach (cardiac)
Dorsal 8	Vertical	Stomach Liver Upper part of small intestine
Dorsal 9	Parietal	Stomach (pyloric end) Upper part small intestine
Dorsal 10	Occipital	Liver Intestine Ovary Testes
Dorsal 11	Occipital	Intestine Fallopian tubes Uterus Bladder (contraction)
Dorsal 12	Occipital	Intestine Colon Uterus

Just as pathology within the gall tract may produce headache through reflex nerve action emanating from a specifically involved spinal cord segment, a similar effect is not infrequently recorded from lesions

arising in the appendix, pancreas, colon, as likewise elsewhere within the abdomen. In such instances, relief of the headache attacks, usually chronic in nature, is largely dependent upon removal of the primary cause.

As a further step in the consideration of gastro-intestinal headaches, particular attention must now be directed to certain specific types, which have been made to assume, in some instances, the importance of separate clinical entities. Reference is made in this connection to migraine, long considered as originating in the digestive tract, as likewise to headaches resulting specifically from deficiencies in the vitamins or mineral content in the diet, unbalanced dietary as a whole, the characteristic headaches following in the wake of upper intestinal stasis, especially in the duodenum, and lastly, allergic headaches.

Bram, Finney, and others, have reported interesting observations in connection with migraine. As a matter of fact, migraine, a so-called paroxysmal neurosis with head pain as its chief manifestation, exhibits a varied etiology. The periodic attacks vary in severity from a mild sensory aura to the most severe hemicrania with gastric phenomena. The work of such men as Duval, Whipple, Kellog, Dragsted, has shown that, in persisting duodenal stasis, a toxic proteose is produced. The question as to whether these toxic bodies arise from changes within the duodenal wall, or is the result of bacterial action on the retained contents, or possibly a combination of both, still remains unsolved. Certain it is, that partial blocking of the duodenal peristalsis brings about a definite toxemia, and may result in a migrainous type of headaches, depending upon the predisposition of the individual. Duval classifies so-called duodenal migraine under the following headings: 1. Migraine usually coincidental with attacks of abdominal pain, often extremely severe and terminating in bile emesis and in an attack of diarrhea. 2. Migraine lasting 12 to 24 hours, accompanied by vomiting of quantities of bile

but without abdominal pain. 3. Periods of cephalalgia, lasting several weeks, but not always corresponding with abdominal paroxysms, and accompanied by nausea, but in many instances without bilious vomiting.

Duodenal stasis persisting over a period sufficient to produce toxemia may be caused either by a narrowing or acute angulation at the ligaments of Treitz, pressure upon the duodenal wall from surrounding structures, periduodenal adhesions of acquired origin, or to congenital bands. In some cases, the cause is to be found in compression of the duodenal wall by the colica media artery, as it passes over the second portion. This increase in pressure and partial occlusion arises either from extreme intestinal ptosis or from an overloaded right colon. In this manner, the periodicity of the attacks is accounted for, in that the partial occlusion is relieved by the emptying of the lower bowel. Whatever the cause of the stasis may be, relief must come through means which will facilitate drainage, and in some instances surgery must be instituted to accomplish this. In our experience, cases not presenting mechanical occlusions by bands or otherwise, may be satisfactorily treated by medical measures. The outstanding therapeutic plan in this group of cases, in our experience, is non-surgical biliary drainage, with transduodenal irrigations, as suggested by Einhorn, Gross, Smithies, Simon and others. Through this means gastro-duodenitis with associated infected biliary tract is thoroughly flushed and detoxication is accomplished rapidly.

CASE 1: A female, aged 29 years; had had periodic headache for about 8 years. Attacks occurred irregularly once to three times a month, preceded by blurred vision and nausea. Pain involved entire right side of head, persisted for 12 to 24 hours, until patient vomited or produced excessive purgation. Patient was of the asthenic type, had a mild secondary anemia and was under weight. There was persistent tenderness in the mid-epigastrium and at the tip of the xyphoid. Roentgenogram showed a visceroptosis and markedly irritable duodenum with a six hour

retention. Treatment consisted of biliary drainage with transduodenal lavage; abdominal support; laxative type of bland diet, and exercise. The patient has gained 15 pounds and has been free of attacks for two years.

Closely simulating the cases of duodenal stasis but differing in certain respects, are those cases of terminal ileal and colonic stagnation, usually associated with constipation. To determine the status of all the varied types of intestinal toxemias is not within the scope of this paper; that these toxic bodies do exist, I believe, has been proved, but they cannot always be demonstrated in a chemical way. The denial of intestinal toxemia in some sources is often predicated upon experiments with normal gut structures, whereas in clinical medicine we are dealing with pathological tissues and organs. The role of the liver and its detoxicating effect upon toxins from the intestinal tract should never be overlooked. The marked distinction in absorbability between the ulcerative and non-ulcerative colon has been clearly demonstrated, and between these two extremes, varying degrees of pathological possibilities exist. Headaches of ileo-colonic origin may occur daily on awakening and are described as a dull aching in the occipital and temporal region, and at times radiating to the frontal area, not reaching the degree of severity of the migrainous types, with the aura, nausea, vomiting, or diarrhea. Occasionally a point is reached when the detoxicating mechanism of the liver fails and a bilious type of headache results. Regional pains are frequently associated because most of these individuals have a colitis or so-called irritable colon and when the mucosa is affected by the toxic intestinal content or by mechanical pressure from feces and accumulated gas, reflex tracts are stimulated and headaches may occur in definite areas of the head.

This particular reflex is well illustrated by the following case: Mrs. S., a woman of 47 years, highly nervous type, suffering with colitis, had pain in the vertical region with an associated dizziness and general feeling of unrest preceding bowel movements and relieved promptly by

evacuation. This same phenomena occurs just before expelling flatus. Another patient, Mrs. P., described a similar phenomena, except that the pain affected the left shoulder, neck, and radiated to the occipital region, and distention of the colon by enemas was capable of producing the pain.

This type of referred pain may account for the conclusions by investigators, who believe that the whole symptomatology attributed to intestinal toxemia is of mechanical origin. These patients find relief in keeping the colonic content in an abnormally fluid state and take frequent purgatives or small enemas, thus avoiding prolonged distention or pressure on the irritated mucosa. The solution here lies in the treatment of the irritable colon; careful regulation of the living habits, a bland diet of the laxative type, with sedative medication, are important factors in establishing again the normal rhythm of the bowel.

The allergic headaches form a most interesting study and have demanded much attention recently. We have placed in this group those individuals who manifest a hypersensitiveness to certain specific foods or to the bacteria of the intestinal tract and their products. It has long been recognized that patients who give a history of urticaria and other allergic phenomena, may have headaches as one of the manifestations of the sensitization. These headaches may vary from a mild sensation of intracranial pressure to typical migrainous type. Vaughan has contributed a very interesting report on this type of case. He has determined the particular food sensitization by skin reactions, produced headaches by feeding these products and relieved the symptoms by withdrawal of the offending foods. His work is significant in that it suggests a tangible means of attacking the problem, but it must be borne in mind that all cases do not give typical histories, nor respond to tests and treatment in a classical manner. It is possible that many of our vague cases of headache may be accounted for by more persistent study along this line. Those instances of sensitization to certain bacteria or the products of

bacterial digestion in the lower gut as recently reported by Lawrason and Dorst, serves to hold interest in a field in which much work remains to be done. The former group of food sensitization does not present any marked difficulty in the treatment, once the offending foods have been established. The problem lies in a careful history, trial of suspected foods, combined with dermal tests. Despite the brilliant reports by some writers, the dermal tests have lacked consistency in our hands, and should be considered as a valuable adjunct, but not be relied upon entirely in arriving at a diagnosis. Attempts at desensitization have been universally poor, and the best results are obtained by withdrawal of specific foods. This latter group of patients who are sensitive to certain bacteria, present a much more difficult problem and though it may be possible to isolate several offending groups, the removal of them by changing the bacteria flora or desensitization by vaccines, leaves much to be hoped for. It is probable that biliary function plays a major role in these cases.

CASE 2: Mrs. H. aged 36 years, gave a history of three laparatomies for intestinal obstruction. In each occasion, only a "swollen bowel" was found, the gall bladder and appendix had been removed, a diagnosis of intestinal allergy had been made four years prior to my observation. Attacks were ushered in with sensations of intracranial pressure and dull aching over the entire head; urticarial wheals and a diarrhea. The diarrhea was followed by abdominal distention and symptoms of obstruction which sometimes reached an alarming degree. Proctoscopic examination revealed an edematous area about 14 inches above the anus—much as if water had been injected under the mucosa. The attack was relieved by adrenalin, and the fact that she had a sensitization to pears, Irish potatoes, cows milk, and eggs, was established by history and all were confirmed by intradermal tests, except pears. Previous attempts at desensitization had failed and the patient has remained well for one year by excluding these foods from her diet.

Lastly, we wish to consider a group of headaches closely allied to specific allergies, yet differing in that the patients have an intolerance to certain types of food, accounted for on the basis of altered metabol-

ism. Specific attention has been drawn to this group by many writers in recent years. Brown and others, have demonstrated that headaches, often migrainous in type, might result from excessive carbohydrate intake and be relieved by restricting this type of food. This same intolerance has been demonstrated in the instance of proteins not confined to one specific product, as in the allergic types. A mass of literature has accumulated in recent years on the treatment of carbohydrate intolerant case with a ketogenic diet, and brilliant results are obtained at times with this plan; however, it is not always necessary to produce a ketosis in the milder types, and good results may be obtained by carefully balancing the diet and excluding or reducing the carbohydrate intake to a minimum. The same principle applies in those cases of protein intolerance.

Attempts to develop a tolerance have met with little success for it is possible a defective liver function is playing the major role in these cases and therapy directed toward resting this organ is often a deciding factor in the treatment.

CASE 3: Miss W., aged 33 years, had had attacks of headaches for many years, probably ten. The pain was usually right fronto-temporal, at times radiating to the occipital region. The headache was followed by nausea and vomiting in about six hours and relieved after a period of excessive vomiting or purgation. She had learned to take Epsom salts and enemas when the headaches started; had never complained of constipation. She had observed that attacks might be precipitated by eating candy, syrup, or starchy food, and seemed worse when under stress. Physical and laboratory examinations were essentially negative. The patient was given a diet, low in carbohydrates and high in fats. She was instructed to take outdoor exercise and after the first month has remained free of pain for nine months.

BIBLIOGRAPHY.

1. Kellogg, E. L. & W. A. Chronic duodenal obstruction. *Ann. Surg.*, 1927.
2. Friedman, H. J. Migraine and its treatment, *North-west Medical*, March, 1925.
3. Vaughan, Warren. Allergic migraine, *Jour. Amer. Med. Assoc.*, 88:1383, 1927.
4. Alvarez, W. C. *The Mechanics of the Digestive Tract*, 1922.
5. Duval Roux, Beletere. *The Duodenum*, 1928.
6. Behan. Pain, 1914.
7. Brown, T. R. Role of diet in etiology and treatment of migraine and other types of headaches, *Jour. Amer. Med. Assoc.*, 71:1396, 1921.
8. Bryant, J. Observations upon the treatment of the chronic intestinal invalid, *Amer. Jour. Med. Sc.*, 161:63, 1921.
9. Reilly, T. F. Headache, its cause and treatment. *Philadelphia Medical*, 1926.
10. Bram, William A. Migraine with pronounced abdominal crises, *Illinois Med. Jour.*, 48:244-246, 1925.
11. Einhorn, M. Migraine and chronic intestinal stasis. *Jour. Amer. Med. Asso.*, 69:1315, 1917.
12. Kast, Ludwig. Headaches from the viewpoint of the internist. *Bulletin of the New York Academy of Medicine Second Series*. 1:149-155, June, 1925.
13. Barker, Lewellys F. On the nature and treatment of maladies that cause headaches. *International Clinics*, 1:8-16, 1929.
14. Laing, G. H. Migraine types in relation to gastrointestinal tract. *Med. Clin. N. Amer.* 11:49-54, 1927.
15. Finny, R. P. Abdominal migraine. *Jour. So. Car. Med. Asso.* 18:192, 1922.
16. Forman, J. Chronic recurring headaches from the viewpoint of the gastro-enterologist. *Ohio State Med. Jour.* 24:115, 1928.
17. Simon, Sidney K. and Browne, Donovan C. The medical aspect of chronic duodenal stagnation. *Jour. So. Med. Assoc.* 990-994, 1929.

DISCUSSION:

Dr. R. McG. Carruth (New Roads): This paper deals with one phase of a subject of widest interest to the whole human family, that of pain. Pain has been called the watchdog of the system, the alarm clock of the animal anatomy. Though wondered at by the philosopher, dreaded and condemned by the Sybarite, mellowed, sweetened and glorified by the religious devotee, it is left for the medical man, the pathologist, the diagnostician, to thank God for the being of pain.

As I said, philosophers have wondered and poets have marveled. This calls to mind some verses by Professor Grant Allen that appeared half a century ago in the columns of the *Popular Science Monthly* on the "Mystery of Pain," the occasion being the joyous flight and painful death of a tiny moth in the flame of a candle on his study desk.

"And he wondered why in the whole wide universe a single soul should feel that primal curse." And he called it a riddle. "And if you would give him the cause for the being of pain you would tell him more than the wisest sage of the greatest lore."

But I think we have it. Were it not for pain the young would not stop at chewing their little finger nails; they would gnaw off the ends of their fingers. We would pay no attention to

wounds. We would become infected. In fact, we can visualize so much deformity, so much harm done to our organs of locomotion and all parts of our bodies that the human life span would be greatly cut down. Therefore I would say with the internist and the diagnostician, "Thank God for the being of pain." It helps us. Although we may not understand all about it—its deeper meanings—it does help us to unravel some of the causes of disease.

In dividing the headaches of migraine and those due to infectious diseases, such as syphilis, tuberculosis and so forth, and eliminating all except those that originate in the intestinal canal or are connected with the intestinal tract, as Dr. Browne wisely remarked, we should not forget the role of the liver. The most we can do to relieve our patients of this distress is to give them the most thorough examination to make use of every method that human art, medical art, and medical progress have placed within our reach.

It has been my custom through a long series of years in the country, where we have not all the means for making these finer diagnoses, for making all the various tests, such as finding the metabolic values and all that, to send these patients, and that is the least we can do when we feel we are at the end of our rope, to the metropolitan specialists.

I can recall in my past life many cases of headache that I could not demonstrate to my own satisfaction as being due to faulty diet. But I do recall the case of one old lady around sixty years of age (this was many years ago) who had a headache, she said, since the days of her marriage. She had grown children and probably grandchildren. She had had that headache for thirty or more years. In a few minutes of investigation I found she had a most atrocious diet habit. She ate the most richly prepared foods, crawfish gumbo, a great deal of red pepper, and all kinds of condiments to whet her appetite. Her children told her she must eat or she would lose her strength. She weighed possibly ninety-five pounds and was a continuous sufferer. I told her I couldn't do a thing for her unless she would agree to come under absolute restriction as to diet. She said her children would never permit this. So I told her regretfully she would have to keep her headache.

We recall the history of Horace Fletcher who was hardly ever without pain during his whole early life. But when he took up the study of the physiology of digestion and later, of dietetics and of kindred branches of medicine and made himself master of these branches of medicine he ceased to have headaches, and he ceased to have pain. In one of his little works, written years after, he said he had not had a pain for ten years,

and he had gained in weight and was never tired. He gives a marvelous account of what he brought about for he laid great stress upon thorough mastication. He wrote several little books and lectured on the subject of chewing, both in this country and in Europe, in fact a new word was coined by his disciples, "Fletcherization."

We will learn to control many of these headaches and various other pains, I believe, by regulating our diet since I believe this is the foundation for all our treatment aside from anatomical troubles which require surgical interference. I believe the secret of solving these problems will be had through advanced and continued study of dietetics and our better adaptation to the changing conditions under which civilized man lives today.

Dr. A. C. Eustis (New Orleans): The question of gastro-intestinal headaches, as most of you know, has interested me for a number of years and I might say that I was first impressed by it in my early connection with Horace Fletcher, whom the doctor has just spoken of.

When I was a boy about fifteen I went on a bicycle ride with Horace Fletcher, he must have been fifty-five at that time, and he beat me up the hill and played me off the bicycle before we got home.

The question of gastro-intestinal headaches has been very aptly covered by Dr. Browne, and I wish to emphasize certain points that he brought out: First of all, the necessity of determining whether the headaches are toxic or reflex.

In my experience, on which I have kept careful notes, the headache of toxic origin is situated over the back of the head. I call it P. C. N., post cervical neuralgia. Patients complain of a drawing sensation in the back of the head. It is almost pathogonomonic of intestinal toxemia. In an analysis of 300 cases of chronic intestinal toxemia made before the Texas State Medical Society, eighty-three per cent of these 300 complained of this symptom. That is very important. You can make a diagnosis on that alone. Of course other things are important.

The reflex headaches, as Dr. Browne brought up, are due to gastric distention, duodenal distention or even rectal distention, as shown by Alvarez. It is difficult for the patient to localize the pain, so much so that they are often treated as neurasthenics.

There is one exception I wish to take to Dr. Browne's paper and that is in regard to the fact that as yet no definite toxin has been shown to produce headaches. Some twenty years ago Herter, working at the College of Physicians and Surgeons in New York on medical students, was able to show definitely that ingestion of large amounts of indol, over the power of the liver to detoxicate, was able to produce definite head-

aches in these individuals, as well as hyperdermatic administration. There is no doubt but that indol does produce headache.

The unfortunate thing is that the man who becomes interested in this subject is apt to consider that all headaches are toxic in origin, and I want to give a word of caution in this respect. We must not forget the small sinuses in the back of the nose, especially the ethmoid and the sphenoid. These are particularly prone to give so-called migraine. I have a case in mind at the present time that the nose and throat man could find nothing at all by visualization to point to any trouble with the sphenoid. We were able to eliminate absolutely any gastro-intestinal trouble or any reflex cause for the headache, or any toxic condition. I insisted on a roentgenray examination and it showed marked cloudiness not only in the right sphenoid but also in the right ethmoid. She was then operated on, and the table of the sphenoid which as you know is ordinarily about one thirty-second of an inch thick was about one-eighth of an inch thick. It was with difficulty that it was cut through with the clip-pers by Dr. Lynch. This operation was done about three months ago and she has had no headache since. She had been having these headaches and had been treated for migraine, neurasthenia, gastric irritation, and what not, for ten years.

So I figure that while you may have an individual with a reflex disturbance in the stomach, don't forget the ethmoid and the sphenoid as possibly the cause of the headache.

In regard to the allergic headache, I have tried to find out what allergy is. It is a term used quite frequently today but none of us know what it is. It is some toxemia and certainly the allergic manifestations that we see, such as urticaria and asthma, are in ninety-five per cent of the cases associated with an intestinal toxemia, and in my experience ninety-five per cent of them are relieved by treatment of the intestinal toxemia.

There is no doubt that we can produce experimental urticaria and asthma by the hyperdermatic administration of histamin. Withdrawal of articles of diet that have the histidin radical, which under putrefaction forms histamin, is the basis of treatment of these manifestations. These so-called allergic headaches, in my opinion, are nothing in the world but an intestinal toxemia with a low deficiency of liver function.

Dr. D. T. Martin (Donaldsonville): I feel that this paper is a contribution to us, especially we men from the ear, nose and throat standpoint. We so often see children come in with typical sinus flare-ups, and we go ahead and treat these youngsters for all the ear, nose and throat complications that we may feel they have and still

their headaches continue. I have known of doctors going so far as to, I have done it myself, open up the antrum.

The doctor mentioned the maxillary sinus in his discussion, but I want to add also that we get these headaches from a maxillary sinus flare-up, and it is all due to a gastro-intestinal irritation. We clear up the tonsils and the adenoids, and go so far as to irrigate the antrum, and still the youngster will suffer with his headache. We run a food test on them and find they are probably sensitive to chicken or some other food, and when we correct the error of diet in the youngsters the sinuses clear up.

Dr. P. B. Salatch (New Orleans): I would like to talk about headaches from the surgical side associated with gallbladder and chronic appendicitis. The worst headaches I have encountered were those accompanied with chronic gallbladders. Many of these patients who for twenty years or more have hardly been free of headaches, remove the gallbladders and their headaches are cured.

It is not always easy to eliminate a chronic appendix as the cause of severe headaches. I think the cecum is one of the few mistakes of nature. Nature does not make many mistakes, but if you remember the appendix is attached to the lower end of the cecum, and interference with its function would cause stasis and decomposition to go on. That is probably why we often wonder why we have so many cases of appendicitis. If the appendix were placed along the ascending colon or some of the other parts we probably wouldn't have so much appendicitis. Even with a baby there may be a chronic appendix that sets up adhesions and interferes with the action of this small cup or the cecal portion, and there you have your trouble.

If you examine these patients and possibly find a little soreness in the appendix, you say to yourself, "That appendix is not sensitive enough to remove." Probably your patient was too young at the first attack. But if you operate on these patients you often find the report will show a chronic appendicitis, and you find a good many adhesions pulling down the cecal cup into the pelvis almost, demobilizing function so that they just remain like a stagnant pool.

So whenever you have a case of a chronic headache, have the appendix and gallbladder in mind—the roentgenray will not eliminate the condition of your bound-down cecum, you might be able to get a roentgenray of your chronic gallbladder. Always look for chronic appendicitis as a cause of a distended cecum and removal of appendix will often clear up some of your chronic headaches.

Dr. Sidney K. Simon (New Orleans): The

subject of migraine is one that interests us all, particularly from the clinical side, because the poor victims cry out to the doctor for relief and so often in vain. At the present time the Rockefeller Foundation, I understand, is conducting an intensive study of the etiological factors, looking to more successful methods of treating the condition.

The experiences of the past few years have produced some very definite impressions.

Personally, I look upon true migraine as a paroxysmal neurosis very closely allied to epilepsy but without the major motor phenomena. The onset is heralded with an aura as in epilepsy, and the phenomena which follow are in the nature of explosive cerebro-spine outbursts. The sequence is, first, the aura and then the headache or hemispheric, functional or paroxysmal gastro-succorhea with prolonged vomiting followed by a marked fatigue syndrome. The patient himself often expresses wonder as to where the enormous quantity of watery gastric content might come from. Within 24 hours, as a rule, the outbreak is over to return again within variable periods of weeks or months. Such an attack can scarcely be confused with sinus headache or any other types of cranial pain. It is something definite and specific, while the etiology still baffles us. I think it is fairly well established that migraine affects individuals with an unstable nervous mechanism or imbalance, most probably in all instances inherited. The paroxysm on such a basis is induced unquestionably by a toxic factor, affecting the neurons of the cerebro-spinal system. The source of the toxemia, I believe, can be traced in most instances to one or two factors, either singly or combined. First, high intestinal stasis particularly at the duodeno-jejunal junction with consequent duodenal dilatation; second, a food factor. Much has been written of food allergy as a cause of migraine, but nothing definite has been proved in this direction. On the other hand, Brown and others have stressed the value of the ketogenic diet, or in other words, the idea that migraine is the result in whole or in part, of an excessive carbohydrate intake or intoxication. My own experiences have led me to believe that this latter theory is of great importance in the treatment of migrainous headaches. By the simple expedient of cutting down upon the carbohydrate content of the food, we have brought improvement to a considerable number of migraine victims. The carbohydrate cut down may be roughly placed at about 100 grams per diem, very similar to the moderate diet of the average diabetic patient.

The cases of true intestinal block or stasis, whether in the extreme upper tract or at the ileocecal valve, furnishes another problem in the

disease. The question resolves itself into one of the degree of obstruction and the consequent amount of toxic absorption. In the extreme types, surgery must be seriously considered. However, as Dr. Browne has so well stressed, the careful regulation of the patient's diet, his personal habits, the free and consistent evacuation particularly of the small bowel and right colon, usually bring about relief in a not inconsiderable number of individuals.

Dr. D. C. Browne (closing): I have no further comments, except that I probably did not make myself clear in referring to toxins of gastrointestinal origin having selective action of the brain or the meninges. It has been proven experimentally that certain substances elaborated in the intestinal tract when properly introduced, are capable of producing toxic symptoms. This I have stated, but so far as I am able to find, no evidence has been presented which proves that these have a selective action on the central nervous system.

CYSTOCELE AND PROLAPSE*

HILLIARD E. MILLER, M. D.

NEW ORLEANS.

In presenting the subject of cystocele and prolapse before this meeting, I do so with the thought of recalling to your minds the anatomical derangements incidental to the development of these conditions. Furthermore, the fact that fifty or more operative measures have been suggested for their correction is evidence that some confusion probably exists in the mind of the individual surgeon as to the type of operation necessary for the particular case.

In the early development of the operative correction of these conditions, little more was done than extensive mucous membrane denudations and the complicated application of sutures. Successful operative measures came only after gynecologists appreciated that the mechanism of the formation of these conditions was identical with that of the formation of any hernia. With this fact established, all subsequent operative attempts were based upon the proper reconstruction of the disturbed anatomical architecture.

*Read before the Orleans Parish Medical Society, New Orleans, April 14-16, 1931.

It is impossible to consider the subject of cystocele without including the problem of prolapsus uteri, as the two are always coexistent to a certain degree, and the conditions which give rise to each are allied and inter-related. The etiological facts of cystocele and prolapse may be divided into two clinical groups, first the congenital group, which may be dismissed simply by stating that it is due entirely to malformations and failures in the healthy and normal development of the uterine and bladder supports, and second, the acquired group, which results from injuries sustained at childbirth. It is the latter group which presents our greatest problem and difficulties.

To properly comprehend the formation of cystocele and prolapse a thorough knowledge of the anatomical supports of the bladder and uterus is extremely important. The uterus is held at its normal level in the vaginal canal largely by the cardinal ligaments, which are more or less reduplicated folds of the base of the broad ligaments. These supports are attached to either side of the cervix at about the level of the internal os, and pass out, laterally, to be fixed to the fascia of the bony pelvis. All other ligaments attached to the uterus serve little more than to maintain the flexibility of this organ in the arc in which it rotates. The bladder is supported and maintained at its normal level by the pubo-uterine fascia, which is a thin, musculo-fascial sheath stretching from the pubis downward over the uro-genital triangle to become insecurely attached to the cervix and the cardinal ligaments. This point of insecure attachment to the cervix is the vulnerable area of the anterior vaginal wall. Any trauma which attenuates or destroys this attachment allows the bladder to sag through this opening. After this occurs, a line of cleavage is established which enables the bladder wall in its descent to strip away the mucous membrane from the anterior surface of the cervix, thereby lessening the normal invagination of the cervix,

and lengthening the anterior vaginal wall.

In the course of the descent of the bladder, the urethra is necessarily dragged upon, causing this canal to rotate around the angle of the symphysis pubis. This creates the mechanism by which the urethra is made to simulate the function of the spout of a tea-pot. This condition results in the increase of the diameter of the urethra, and a varying loss of function of the sphincter muscle. When this occurs, bladder control is present only when the level of the urine does not exceed the height of the urinary meatus. Consequently, any increase in intra-abdominal pressure by coughing, laughing or straining causes an involuntary spill of urine.

With this explanation of the normal anatomical relations we are in a position to appreciate just how, and why, prolapse and cystocele occur. The direction of the pelvic canal is that of a curve. With the uterus maintained in a normal position, any increase in the intra-abdominal pressure forces the uterus forward behind the bladder, and against the symphysis pubis, and at the same time, increases the normal curvature of this canal. If there has been any weakening of the supports of the uterus and bladder no resistance is offered to intra-abdominal pressure, and, as a consequence, the uterus begins its descent and necessarily rotates backward. This descent and retrodisplacement of the uterus destroy the normal curve of the pelvic canal in varying degrees, and result in directing the intra-abdominal pressure in a straight line towards and against the weakened supports.

In as much as trauma during delivery is the primary cause of practically all cases of cystocele and prolapse, I think a word in respect to the avoidance of these injuries might not be amiss. I believe that any operative procedure to deliver a baby before the cervix is completely obliterated is the largest single factor in the causation of the anatomical distortions which lead to cystocele and prolapse. While it is some-

times impossible to avoid, even with the most careful management, the development of these conditions in the occasional case, where there is some disproportion between the fetal head and the maternal pelvis, I cannot too strongly emphasize that there can never be a pretext for operative interference before complete cervical dilatation has occurred. The preservation of the normal perineal supports is of paramount consideration, and where lacerations have occurred, they must be reapproximated anatomically at the time of delivery. In my own practice, I have for many years used as routine procedure episiotomy and low forceps delivery in all primiparae. In this way, the perineal structures are severed by a clean, smooth edged incision, which permits of the identification of muscle and fascia, and the proper coaptation of them. In this connection, I have never seen an instance of infection or healing by any other than primary union.

Routine examination of all patients two months after their confinement should be an established rule. At this examination the degree of involution, the size, shape, position and mobility of the uterus should be determined. The patient should be asked to strain, and the degree of relaxation of uterine, bladder and perineal supports noted, the extent of damage and the condition of the cervix investigated, and appropriate measures instituted for the correction of any condition that varies from the normal. The prophylactic measures taken at this time will often avoid serious developments at a future date. For example, a procedure as simple as the insertion of a Smith or Hodge pessary to support and aid in the involution of a large uterus will correct the position and avoid the downward drag against attenuated supports. This measure may be supplemented by the use of hot douches and uterine stimulants to hasten proper involution and improvement in the general tonicity of the uterine muscle.

If the extent of damage found at this

routine examination is such as to predispose the patient to the formation of cystocele and prolapse, it is little short of negligence to encourage delay in the correction of these injuries. Deferring operation in these cases leads to a more accentuated weakening of the uterine and bladder supports, and will, in time, result in an exaggerated amount of pathology, and consequently much more extensive operative correction. One must not be misled by the lack of symptoms in the early stages of the formation of cystocele and prolapse, as the patient may have a considerable degree of prolapse and cystocele with little more than a mild feeling of weight in the pelvis. However, if the case is neglected, and after further slide of the uterus and bladder has occurred, the accumulation of pathology and symptoms is pronounced. The patient then returns with residual bladder urine and incontinence, cystitis, marked pressure in the pelvis, backaches, menstrual disturbances, and a long train of nervous and circulatory manifestations.

Before deciding which type of operation is indicated we must group these patients in two distinct categories; first, those whose ages would make the possibility of future pregnancies a likelihood, and second, patients near or at the menopause. In dealing surgically with group one, we must bear in mind that any type of operation which is done must necessarily not distort nor create any mechanical condition which might lead to dystocia, or future obstetrical problems. It is particularly necessary, in these cases, to reconstruct the disturbed structural relations of the pelvic muscles and fascia along anatomical lines. For these conditions, a combination of the bladder advancement operation, repair of the perineum, and either an Olshausen or Baldy-Webster round ligament suspension operation is recommended. In the bladder advancement operation, the anterior vaginal wall is opened, longitudinally, the bladder separated by blunt dissection from the vaginal flaps, and from the cervix, and is

pushed well up into the abdominal cavity to about the level of the internal os. The pubo-uterine fascia and muscle are dissected loose from the posterior surface of the vaginal mucous membrane. This is completed up to, and on a level with, the urethra. These structures are reapproximated in the midline, from above downward, until we reach the level of the internal os of the uterus. From this point downward, these structures are sutured securely to the musculature of the cervix. If this tissue is more or less redundant, to diminish the transverse width of the vagina an actual overlapping of them may be done. The redundant mucous membrane of the anterior wall is trimmed away, and reapproximated. It is also a good plan to stitch these tissues to the cervix, as was done in the fascia. It will easily be seen that when this is completed, we have brought the bladder back to its normal level, we have reduced the longitudinal and transverse axis of the anterior vaginal wall, have corrected the attenuated condition in the midline of the anterior vaginal wall, we have reapproximated the structures at the weak point, and have reinvaginated the cervix to its normal extent. After this has been completed, any relaxation of the perineum is repaired, and an Olshausen or Baldy-Webster suspension is done, transperitoneally.

With group two as a consideration, we have found that the Watkins interposition operation serves the purpose ideally in all cases which are properly selected for this procedure. In our own practice, an analysis of cases followed for over a period of from one to ten years shows that complete relief has been obtained from all symptoms and mechanical disturbances in 95 per cent of cases. The details of this operation are so familiar that it is unnecessary for me to outline technical details, but I would state that as compared with many other measures suggested for the correction of cystocele and prolapse, that it is a comparatively simple procedure. Certainly, it is more simple than the various operations

which have been advised for bringing the broad ligaments forward and anterior to the cervix to be stitched, the latter procedure necessarily carrying with it a very extensive separation of the base of the bladder. The principles upon which the Watkins operation is based are that the uterus is elevated to a higher level in the pelvis, is brought forward through an arc of 180 degrees, and fixed in such a way as to form a shelf and support for the bladder after it has been pushed up to its former normal level. In pulling the uterus forward through this arc, the bases of the broad ligaments are necessarily twisted and consequently shortened to a degree that draws the cervix back into the posterior sulcus of the vagina; the cervix is thus lifted to a higher level in the pelvis and the fundus closes the weak point in the anterior vaginal canal, and also counteracts any future tendency of the bladder to sacculate.

As in all other operative procedures, one must be careful to select one's cases for the interposition operation if good results are to be obtained. In such cases, the condition and size of the uterus, the degree of prolapse, whether or not there is an associated enterocele with marked rectocele, and the length, size and condition of the cervix must all be considered. Of course, it would not be the rational procedure to interpose an unhealthy fundus or one hypertrophied much beyond normal size.

In a few cases where the uterus is hypertrophied, but normal in every other respect, one may reduce the size of this organ to one applicable for an interposition operation by removing a wedge-shaped portion of the anterior wall of the uterus, or by removing the fundus. In marked degrees of uterine prolapse, I would not recommend this procedure, as the entire vaginal diaphragm has become very markedly attenuated and the degree of stretching of the cardinal and utero-sacral ligaments is so marked as to make it unlikely to succeed. However, in such cases it might

be used if the Goffe technic for bringing the broad ligaments forward, and in front of the cervix to complete the invagination of this structure, is combined with the interposition procedure.

It is extremely important that careful consideration be given the length, size and condition of the cervix before the Watkins operation is done. If the cervix is not healthy, if it is lengthened, if there is any degree of erosion, cystic degeneration, or cervicitis, this structure must be amputated previous to interposing the fundus. Most authorities state that this operation is not applicable in those cases with marked enterocele and rectocele. We have used this procedure successfully in a high percentage of cases, provided proper attention has been given to the correction of the enterocele by shortening the utero-sacral ligaments, and realignment of the posterior vaginal fascia, and an extensive perineorrhaphy done for the rectocele.

Care must be exercised in the position in which the fundus is placed under the bladder, and also in the extent of the separation of the base of the bladder. If too wide a separation is effected, and if the fundus is stitched too high in the angle of the symphysis pubis, annoying urethral and vesical disturbances are apt to result. If the interposition operation is elected for a case in the late thirties, the tubes must be divided, the stumps buried to insure against the likelihood of a subsequent pregnancy. There have been a few cases reported in literature where pregnancy has occurred following this operation, which gave rise to almost insurmountable and fatal obstetrical complications.

One might believe, after this review of indications for the operative procedures outlined, that this chapter was closed. However, there remain quite a few cases for which neither of these procedures are fitted. In this group are included the extensive degrees of prolapse with cystocele; cases where the fundus of the uterus is large and unhealthy, and, lastly, where the

degree of attenuation of the pelvic muscles and fascia is such that a reapproximation of them along architectural lines would be impossible. For this group, the Mayo procedure of vaginal hysterectomy, with utilization of the broad and round ligaments as a support for the bladder, accompanied by a correction of any existing enterocele and rectocele, is ideal. After the uterus has been removed vaginally, the broad and round ligaments are brought together in the midline, sutured with a mattress suture, thus creating a new vaginal diaphragm, and forming a bridge which eliminates any likelihood of a future downward slide of the bladder. Where there has been any urethrocele in connection with this problem, it is a good plan to suture the round ligaments separately to the firm fascia under the angle of the symphysis of the opposite side. This not only helps to support the urethra, but closes off any open space which might exist above where the broad ligaments have been stitched together.

While the title of this paper does not include perineal injuries and relaxations, too much emphasis cannot be laid on the appreciation of the fact that the levator ani, and transverse perineii muscles form the greatest barrier to the descending uterus, and give the strongest support to the attenuated cardinal ligaments than any other combination of pelvic anatomy. It is therefore important that perineal repair is to be done in conjunction with any operative measure for the correction of prolapse and cystocele.

In conclusion, let us again state that the best way to approach these problems is to understand from the beginning that we are dealing with a hernia, which is in all respects similar to that found elsewhere, and if we are to aspire to better results, we must keep this fact constantly in mind and fit the operation procedure entirely to the individual case.

DISCUSSION.

Dr. H. W. Kostmayer: In the course of years of experience, men acquired different slants, if I

may use the word, on problems that we deal with daily; and so, in this instance, without in any way wishing to be interpreted as taking exception to anything that Dr. Miller has said, I wish to call attention to a few different ideas and opinions here and there.

The first one that occurs to me is that of routine episiotomy which, as Dr. Miller said, was a little aside from the literal title of the paper but is, nevertheless, pertinent to it. For a long while I did routine episiotomy in primiparae. Then came two cases of painful scar following episiotomy both of whom finally deserted me while I was still trying to relieve the painfulness of these scars by repeated excisions and office treatments. And so I now reserve episiotomy for those cases which, in my judgment, will not deliver without laceration.

Next in order is Dr. Miller's reference to the routine examination of the parturient seven or eight weeks after delivery. I stop to mention this because I think its importance cannot be over-emphasized. In this connection, it is interesting to recall an article of about a year ago by Dr. E. D. Plass. After reviewing several hundred cases of displacements of the uterus during the early months of pregnancy and at the seven or eight-week postpartum, he came to the conclusion that retrodisplacements of the uterus as an obstetrical complication did not exist. Nevertheless, review of his statistics shows that there were about 4 per cent more abortions in pregnant displaced uteri than in patients in whom there was no displacement. Add to this the fact that bladder disturbances, heaviness and pain in the lower abdomen and back, uterine bleeding and sometimes nausea and vomiting are relieved by replacing the retrodisplaced pregnant uterus and holding it up with a properly fitting pessary, and we have, I think, sufficient to justify us in treating this condition as an obstetrical complication.

Passing on to the main point of the paper, namely the discussion of cystocele and prolapse and their correction, I wish to set forth a plan of attack which is very easily remembered and put into effect. Obviously the method of correcting large cystocele and prolapse is really that of utilizing the broad ligaments of which the uterus may be considered a part to hold up the bladder. Therefore, if it will be borne in mind that when there is a large cystocele without prolapse past the child bearing period the uterus may be used, as a plug under the bladder, in other words the interposition operation should be done. If, on the other hand, there is complete prolapse of the uterus without large cystocele, mere interposition of the uterus without in some way shortening the broad ligaments will certainly invite recurrence of the condition. Therefore it is necessary in

these latter cases to remove either all or a part of the uterus, re-establishing the continuity of the broad ligaments and using them upon which to suspend the bladder. This position is adhered to despite the wonderful follow-up of Johns Hopkins Hospital on the interposition operation which was done by them without reference to the amount of descent of the uterus.

In other words, I feel that it is important to differentiate between cystocele with prolapse and cystocele without prolapse, adapting the method of attempted cure according to the amount of descent of the uterus.

Dr. Hillard E. Miller (closing): Just a word concerning the stand I take on the performance of episiotomy. I have used this procedure for more than ten years, and I cannot recall a single instance in which I have regretted that I used it. I can readily appreciate that there is a possibility, if it is badly performed, of getting a contracted and painful vagina as a result, particularly if infection followed, or if a wide episiotomy was necessary and the ischioanal space had to be entered, but I have been fortunate in never having such a personal result, and I hold to my opinion as to the benefits of the procedure. I am careful always to iron the perineum out thoroughly with the fingers before making the incision, and it is rarely necessary for the deliberate injury to amount to more than a second degree tear. Even if the cut must be more extensive, it is quite possible, if the proper care is taken, to stitch the structures back in their original relations and obtain a perfectly good result.

As to the displaced uterus after labor, it is a more or less general idea, though an entirely mistaken one, that the uterus should bleed for six or seven weeks. It is always astonishing to me to find out how little regard patients pay to this symptom, because they believe that bleeding is to be expected. If bleeding persists, either the patient has a mild infection or she has a subinvolution of the uterus. There is most often something wrong with the process of involution if she bleeds more than three weeks, and the subinvolved uteri are the uteri which are displaced, and which ought to be put back into position promptly with the Smith or Hodge pessary. When the displacement is corrected, the subinvolution disappears, and when the subinvolution disappears, the bleeding stops.

From Dr. Kostmayer's discussion I judge that I did not make my position clear on the matter of the Watkins-Wertheim interposition operation. I did not intend to imply that we would advise its employment in cases of complete prolapse. It is never to be recommended in any instance in which the cervix is protruding through the introitus or even can be seen at it, for those are the cases in

which the stretching of the cardinal and broad ligaments is so marked that merely bringing the uterus forward in the pelvis will not correct the prolapse. Such cases are best handled by the Mayo vaginal hysterectomy; after the uterus is removed, the broad ligaments are stitched together to form a diaphragm for the bladder. This is our position, and it is entirely in accord with the principles Dr. Kostmayer has stated.

THE PROBLEM OF PSYCHOPATHIC PERSONALITY.*

GEO. F. ROELING, M. D.,
NEW ORLEANS.

The abnormal reaction of the mental field of emotion, classified as psychopathic personality, covers a wide range of subject matter and presents many issues, as well as many problems, from the medical and legal aspects. Contrary to the extensiveness of the subject, I will endeavor to present briefly for your consideration a few of the essential points, together with a summary of a case record or two that may be of interest.

There are individuals whose mental constitution and manner of reacting to their experiences characterized them as differing from those who are normal, although they are not insane. Their abnormalities are confined largely to the qualities and intensity of their emotional reaction, and to the effect which these have on their behavior. Between this group of individuals and the normal are the transitional types, characterized by the predominance of the pathological symptoms in varying degrees. We frequently find the psychopathic personality forming a basis for the development of one of the well defined psychoses and associated with other mental disorders, such as hysteria and paranoid states.

Psychopathic personality leading to conflict does not arise from the lack of mental ability, as was generally thought, but is due to some lack of co-ordination between the intellectual qualities and the emotional characteristics of the individuals. This lack

of co-ordination is found to appear during various periods of life. It is often observed in early childhood as one of the known forms of abnormal character behaviors. This lack of co-ordination is carried through childhood into adult life, there manifesting itself as a predominant feature in the individual's behavior. It is likewise found to appear in adult life, where no previous history of abnormal character behavior existed, or if it did exist, was not recognized.

Krapelin, after a very comprehensive study of the group as a whole, has formulated a classification now generally accepted, which is dependant upon the predominance of various symptoms; as, (a) the excitable; (b) the inadequate; (c) the impulsive; (d) the eccentric; (e) the pathological liar and swindler; (f) the anti-social and (g) the quarrelsome personalities.

There is an additional classification which is useful and comprehensive from the psychiatric standpoint. It includes the (a) psychopathic depression; (b) psychopathic exaltation; (c) hysterical; (d) epileptic; (e) neuro- and psycho-sthenic; (f) post-traumatic, (g) shut-in-personality and (h) the persecutory. Besides these mentioned, we have what is considered the more dangerous forms; (i) the unresponsive; (j) the cranks; and (k) the moral degenerates.

Since the standardizing of the intellectual rating, a great deal of attention has been given to the individuals showing behavior problems due to such defects.

Various surveys made during the years 1917 and 1919 by Murchison and in later years by others, compare the intellect of various prisons and the general population. It was their belief that these intellectual defects were the most important factors in the etiology of crime production. This survey and the interpretation of the results was easily accomplished because of the relative ease with which these tests could be made and the accuracy by which they could be standardized.

At about this time, the importance of the abnormal emotional state in the production

*Read before the Louisiana State Medical Society, New Orleans, April 14-16, 1931.

of crime was brought to the attention of the medical profession by Frenald, Hayes and Drowley, who were among the first to recognize its importance.

I am of the opinion that were it possible to have adequate data in sufficient form, we could prove that the emotional characteristics are more important as etiological factors in the production of crime, particularly that of the major crime, than the intellectual disturbances. Unfortunately, this is impossible up to the present time, as we have no method by which we may measure emotional reactions, nor has the psychiatrist formulated a scientific classification of the mental abnormalities effecting the conduct that could be generally accepted.

Records of the Wisconsin State Prison demonstrated that 12 per cent of the inmates were feeble-minded and 52 per cent abnormal personalities. West Virginia State Prison survey showed 15 per cent of the inmates feeble-minded and 65 per cent abnormal personalities. My personal experience obtained from daily contact with the inmates of the local Parish Prison together with the examination of 126 prisoners charged with major offenses of the law, of whom 25 were definitely psychopathic and sent to the State Hospital for the Criminal Insane, while 30 were feeble-minded, that 71 showed abnormal personalities. Three of the feeble-minded group were sent to the State Colony and Training School. Only nine of the 71 showing abnormal personalities were sent to the Criminal Insane Hospital, the remaining 89 being sent to the Penal State Farm at Baton Rouge, La. It is to be noted that none of the 126 examined came within the accepted limit of the normal.

The etiological factors in the production of this lack of co-ordination between the intellectual and emotional mechanism may be classified as:

- 1—Inherited; 2—Environmental; and
- 3—Sociological factors.

Inheritance—The inheritance of abnormal personality is apparently the most

important of the etiological factors and is generally manifest in early childhood as one of the various forms of abnormal behavior.

Environmental—Environmental factors play an important part in the formation of the character behavior of early childhood. The faulty seed is planted and grows with the development of the child, forcibly displaying itself in adult life as one of the forms of abnormal behavior reaction. We are also cognizant of the reaction incurred by the sudden migration of the individuals from the group life on the farm and rural sections to a more individual life in the city, where they forms as it were a definite unit in life's struggle for existence.

Sociological—Sociological factors seem to play an equal part in the production of the abnormal adult personality reaction and aid in accentuating a pre-existing weakening of the mechanism. The rapid development of civilization as expressed by Laws restrict the individual to such an extent that the gratification of almost every desire for pleasure is today legally made a crime. It is to be remembered that man possesses the primitive instinct to live his life in his own fashion. When natural repression of judgment and the demands of society are associated with a loss of co-ordination between the intellectual and the emotional mechanism, transformation from the normal to the abnormal character reaction occurs, as result of which these individuals will perform the most un-natural, barbarous acts and assume attitudes of indifference, believing that they have offended no one and have committed no wrong.

CASE REPORTS.

Case 1. R. E., known as the cock-eyed bandit, was a native of Mississippi. He was a white, unmarried male, aged 23 years, a musician by occupation, who was arrested in New Orleans on April 18, 1930, during an attempted robbery of a restaurant. He was identified as having robbed several oil stations, a pharmacy and several restaurants within a week or ten days. He always placed the artificial eye in the position of internal rotation before entering the establishment of his victim. After a small purchase, he would quietly approach the cashier, and with a gesture, as if to

reach for money to pay, he would display his gun and order the register opened. After obtaining the money he would make a speedy exit in a stolen automobile, driving a short distance from the scene and abandoning the automobile. After placing the artificial eye in the normal axis, he often returned to the site of the hold-up and would endeavor to inform the police of the direction taken by the fleeing bandit. Family History—His father and mother were living and well. One brother and one sister were living and in good health. One uncle was alleged to be insane as the result of the abuse of alcohol and of having syphilis. Personal History—His development during infancy and childhood was normal. He began at school at the age of five years but stopped at 14 years, while in the tenth grade. During this time he was mischievous, difficult to control, and was expelled on several occasions. His anti-social acts began at the age of 8 years with the shooting of his brother, from which he seemed to have derived great pleasure, as expressed by his family. At 11 years of age, he was sent to the industrial school at Columbia, Miss., for smoking, staying out at night and disobedience. He remained only four months after which he rambled around Mississippi. At 14 years of age, he assaulted and robbed two men, for which he was returned to the Columbia Institution, escaping after two days. He came to New Orleans where he joined the Merchants Marine, went to France, where he remained six months. Upon his return, he joined the U. S. Navy and remained in service for one and one-half years. He stated that he received a medical discharge due to a weak heart and that he had previously given the doctor a one hundred dollar tip. He returned home but soon began to ramble. He was arrested in Birmingham and brought to Toupeto, Miss., to stand trial for the robbery of a jewelry store, which netted him several thousand dollars in diamonds and \$3000.00 in cash. He was found guilty and sentenced to two years in the penitentiary. While there, he came into conflict with a fellow prisoner and lost his right eye, following which he was pardoned, twenty-one months after his original sentence. In January, 1928, he had a conflict with a negro and alleged to have shot him. Physical Examination—The blood pressure was systolic 130, diastolic 85. Respirations 18, pulse 68. The rest of the physical examination was essentially negative. Laboratory Findings—Blood Wasserman was negative. The spinal fluid examination showed a negative colloidal gold curve, the cell count was 2, and there was no increase in globulin. The urine was essentially negative.

Neurological Status—There was nothing important. There was no history of convulsions or loss of consciousness at any time.

Mental Status—He was composed and self confident and answered all questions freely and readily. He demonstrated how he used his artificial eye to conceal his identity. Imaginations and delusions were denied. He had no enemies, but felt that he had not received just treatment by the law. Hallucinations were denied by the patient.

His memory, general information and orientation were all good.

His judgment as to other prisoners was very good. He understood his own position and felt that he was largely responsible for his own troubles, although he was elated and proud of his actions, feeling that he had had great accomplishments. He did not consider the punishment given by the law to be just, therefore, we did not consider his judgment as very good.

Case 2. R. S., a white, married male, aged 30 years, a native of Wisconsin. He was a mechanic by occupation. This man was arrested in Hattiesburg, Miss., on October 15, 1930, following the robbery of a branch bank in New Orleans. He fled in a stolen automobile and when arrested had two thousands dollars in cash. His capture was preceded by an exchange of shots between the Sheriff and a relay of citizens of Hattiesburg, who went to the aid of the Sheriff. Personal History—R. S. was born in Sturgeon Bay, Wis., on September 17, 1900. He did not recall any diseases of childhood nor could any be ascertained from his family. He had the yellow fever in 1918, in San Domingo. He had malaria in 1920 while in the Coast Guard Service. He denied any history of venereal diseases. He began kindergarten at the age of four years, and left school at the age of 15 years. The boy then attended the first year of high school. He left school because of his constant conflict with the teachers and other pupils and objected to the discipline of the school. He enlisted in the Coast Guard Service of the U. S. Navy for three years, receiving a non-commissioned officer grade. He then entered the life guard service where he remained but one year. He became tired of the work and quit. He held several engineering jobs between the years of 1923 and 1927, in Chicago and in Milwaukee. He moved to New Orleans in May, 1929 and was employed but a few weeks. He claimed to have quit his position because he did not care to work. He denied ever having been discharged. Shortly after his arrival, it was discovered that he possessed a stolen automobile for which he was arrested and tried in the Federal Court on the charge of transporting stolen property into the State. He was found guilty and sentenced to fourteen months in the Atlanta penitentiary. Three weeks after his release from the Penitentiary he met a man named J. A. and after an acquaintance of three hours, they decided on

the robbery of the bank. Investigation revealed that his brother, a popular Milwaukee attorney, had had him sent to the Wisconsin State Hospital after repeated forgeries and passing worthless checks. He remained in this Hospital from February 25 to May 11, 1929, at which time he eloped from the open ward. He was presented to the Staff on two occasions during this period and diagnosed as a psychopathic personality without psychosis. Family History—His father and mother were living and in good health. Three brothers were living and in good health. There were no living sisters and no sisters nor brothers dead. Physical Status—His blood pressure was systolic 120, diastolic 70. Respirations 18, pulse rate 70. The physical examination was irrelevant. Laboratory Findings—The urine was essentially negative. The blood Wassermann was negative, as was also the spinal fluid. Neurological Examination was essentially irrelevant. Mental Status—General Behavior: Since admission to the prison he had been quiet, generally co-operative, although occasionally complained about not being permitted the yard privilege. He was composed, talked freely, and was confident of his ability to win his case. He played cards with his fellow prisoners and was interested in his general surroundings. Imaginations and Delusions—He stated that he had no enemies and did not believe that anybody was responsible for his troubles. Hallucinations were denied by the patient. His orientation in all three dimensions was good. His memory and general information were good, and his calculations were mentally accurate.

Judgment—Very good. When asked what he intended to do in the future, he replied that he had a surprise, which he intended to use for a defense. If he was successful in winning his case, he would return North, fire on the railroads or go to South America and engage in a promoting business.

Case 3. W. B., a white male, aged 11 years, a native of Assumption Parish, La., was sent to the East Louisiana State Hospital on July 13, 1929 from Napoleonville, La., because of his threats to kill, and his ungovernable temper, tantrums and incorrigible behavior including the burning of a house. The history of his infancy and early childhood were unobtainable. He suffered an injury to his head following an automobile accident which resulted in a scar in front of the left side of the head. The details of the injury could not be ascertained. He had had one year of schooling and used tobacco freely. During his stay at the hospital, while on special privilege to use the central building, he was caught in the act of rifling the Treasurer's office. On February 28, 1931, he was paroled to the Warrington House, but had to be returned after a few days to the

Hospital as incorrigible. Family History—Father died when the patient was in early infancy, age and cause unknown. His mother died when the patient was three years old, cause and her age were unknown. There were three living brothers and four living sisters. All were in good health. No history of dead brothers nor dead sisters. Upon the mother's death, the boy was taken by his uncle to make his home with him. The uncle was a drunkard who ill treated him and forced him to steal, caused the boy to desert him after a brief stay. He then made his home with other relatives in Napoleonville and in a short period of time he again came into conflict and was sent to the East Louisiana State Hospital. Physical Status—Except for the scar on his head, poor oral hygiene and chronic tonsillitis the physical examination showed no other abnormalities.

The neurological status was also irrelevant. Mental Status—General Behavior: He was obedient when necessary, but very mischievous. He was inquisitive, but no more so than the average boy of his age. He was alert and apparently brighter than the average lad of his age. He was sociable and endeavored to make friends.

No imaginations nor delusions could be determined. He believed that he saw a vision of his mother, but this was only after a Catholic confession. He denied hearing any voices. His orientation and memory were good, as was also his calculation for one year's schooling. He had a good insight into his past behaviors. He admitted that it was wrong to steal and to lie and that one should be punished for doing so. Yet he would immediately commit the offense if given the slightest opportunity. Said it was wrong to burn a house and that he would never do it again.

CONCLUSIONS.

From the general contents of the paper, we at once confronted with the problem of what should be done for this type of individuals?

Should such charges be sent to a Psychopathic Hospital or should they be sent to a Penal Institution? It is to be noted that Case 1 of R. E. was sent to the State Psychopathic Hospital for the Insane and that in Case 2 R. S. was sent to the State Penal farm together with the remaining 89 Prisoners, showing abnormal behavior due to intellectual and emotional disorders.

The case of W. B. presents an unusual problem for our consideration and it is hard to say what should be done for an individual at this age.

Before finally concluding what is the best treatment for these individuals, we should remember that we are probably just at the beginning of a satisfactory study of the factors determining character, conduct, reaction. Psychiatry has already given us a vast amount of information upon the conduct reactions as well as the treatment of conduct problems, although we are compelled to determine by our experiences the management of each case.

Note: I am deeply indebted to Dr. Glenn J. Smith for the History of W. B., Case 3.

DISCUSSION.

Dr. Glenn J. Smith (Jackson): You will notice Dr. Roeling confined his essay to psychopathic personality, psychopaths without psychosis. The psychopath with psychosis is no problem to us because we can, after he has a defined psychosis, put him in a state hospital or some institution and care for him. But the man without psychosis is a social problem today.

The paper was interesting from several viewpoints. It beautifully tells us what psychopaths are, their characteristics, the etiological factors, demonstrating all of this by presenting three typical cases, clearly showing to us what problems face society in dealing with them best.

Here are a number of individuals who are absolutely not insane from the psychiatrist's point of view, according to our classification of diseases. They know right from wrong, as the lawyer would have us say, but either prefer to do wrong or care not for the consequences. It is proven that good advice and punishment do not change their behavior. When entangled they make as shrewd and intelligent defense as a trained and normal criminal, and when convicted realize and are humiliated over their behavior, but when punished as soon as they are liberated they immediately repeat it.

The question is what are we to do with them? I think most of you will agree with me that they should not be put under the lash in a state penitentiary, and they should not be put in insane asylums or with the criminal insane. I think it is inhuman to do either. I would suggest a median place under the supervision of a state hospital, awaiting such time as we will improve upon the treatment of them.

Of course, that will be a problem. This young child shows age is no respecter in these cases. Here is a child who began his psychopathic personality from three or four years old. At the age of nine or ten he became a proposition for the courts. This child is not insane. He is under my direction now. He, as most of them do, be-

haves very nicely according to hospital routine. But this child, immediately that you get slack with your hospital routine and give him privileges, will commit some little meddlesome offense that we can't put up. He is truly an institutional case and, as I say, he, as with the others without psychosis, is a problem. He shouldn't be sent to the penitentiary. He is a little fellow. He has feelings. He is emotional. When you talk to him he cries about it. He is humiliated, but immediately you get slack with your rules (he is no exception to the rest of them) he does something along this line.

I had the pleasure, the opportunity (it was really not a pleasure) of having this cock-eyed bandit with us. He is another true psychopath such as Dr. Roeling described. We recently brought this young man before the class of L. S. U. of abnormal psychology. He volunteered to go. He was questioned there, "Now when you get out, what do you intend to do?" He frankly told them he didn't know, but he thought he was going straight, and that all of this was a lesson to him. He said, "I have been fooled so many times (he is only twenty-two years old but his experience is great) that I can't tell. I may go wrong again." He has as splendid a family as I ever knew, from the correspondence we get from them. Evidently he has a dear old mother who is refined and cultured, and it is very painful to them to see him in this condition.

It is a great study and a great problem. It is a problem before us, gentlemen, that I hope the medical profession will not turn over to the lawyer. These jurists will send all of them, of course, to the insane asylum because their astute lawyer will tactfully put these insane acts before the jury, and they decide the case as insane regardless of the testimony of a half dozen aliens. So if we left it to them they would send them all to the insane asylum, and I hope the medical profession of the state of Louisiana will not leave this problem to lawyers but will, in co-operation with them, decide upon some place to keep them.

There is another thing I want to bring out. Dr. Roeling touched upon it inasmuch as, he said, it was the beginning many times of a true psychosis. I wish to go a little further and state that the data in our institutions show they have a preponderance of hereditary causes. In other words, the majority of these psychopaths, perhaps all of them, give a hereditary background for insanity, and most times their relatives are feeble-minded with psychosis.

I wish you would feel close enough to the subject when it comes up, in the case of framing an act to put on your statutes, to help decide this case and not leave it up to the laymen.

Dr. E. McC. Connelly (New Orleans): Dr.

Roeling, in his paper, touched upon the bete noire of the psychiatrist as well as the bete noire of the community as a whole.

I am frank to say I don't know that I have any solution to the problem of handling the psychopath. Essentially it is a matter of diagnosis. In the course of ten years handling of the ex-service men for the Veterans' Bureau, I saw many cases originally diagnosed psychopath by myself and by others who later came back definite psychotics. I don't mean, gentlemen, the psychopath has developed a psychosis in conjunction with his psychopathic state. I mean definite praecoxes, manics, and conditions of that sort. The original diagnosis of psychopath was in error, therefore. The conditions we called psychopath were really nothing but early manifestations of a psychotic personality.

Again, one of the great problems we have to deal with is the matter of degree and type. If the psychopath happens to be outstanding in some particular field of endeavor, say music or something of that sort, then he ceases to be a psychopath and is "temperamental." His problem is just as great in many respects, but the complexion of the situation is changed. Of course if he has criminalistic tendencies, and comes in conflict with society it is different.

As to handling them, I feel the legal question of responsibility has to be considered as well as the medical side. I don't know that we have any better criterion to go by than the old, very old standard of whether a man is able to judge of the nature and quality of his acts. I feel that at the present time we psychiatrists will have to stand by the lawyers in that respect; that a man, whether he has temperamental or emotional disturbances or not, if he is able to judge of the nature and quality of his acts, and if he is not acting under compulsion, from some psychotic condition, should be judged responsible.

Of course, in the case of children, such as the last case Dr. Roeling mentioned, there is already a field of work which interests most of us very much and that is the child psychiatrists' clinic. We have found, through the agency of the National Committee for Mental Hygiene that has established a number of these clinics throughout the country, that much can be done in the way of training of the abnormal child. Each, of course, is an individual problem and no general formula can be laid down for dealing with them.

However, as I said just now, in considering the criminal we have to depend on our old criterion as to whether or not a man is able to judge of the nature and quality of his acts, and go a little further and say we must make a thorough, careful study of the case to determine whether or not this man may not be actually psychopathic

or psychotic and not emotionally unstable or anything of that sort.

Dr. Walter J. Otis (New Orleans): Psychopaths are, and will be, for the most part the bane of the neuropsychiatrist and the Law though all classes of psychopathic personality do not come afoul of the Law.

Many psychopaths are known geniuses and it is only when they perform acts contrary to social usages and become anti-social that we term them criminalistic. The question of taking care of these should be correctional under discipline. Psychopaths always do better under discipline, whether it is military, official, environmental or industrial.

Medicine can do much by building up their physical morale, taking into consideration the endocrinopathies, their metabolic reactions, etc. The less coddling and sympathy the psychopath receives, the better for his general morale for by so doing we project a defense mechanism which he uses in attempting to cover his errors, using all this as a conversion complex.

The question of the problem child should begin in many cases with the problem parents for these children are so as the result of environment and not due to a definite embryonic mal fixation.

Dr. G. F. Roeling (closing): The only thing I want to emphasize is the fact that this type of individual, as Dr. Otis brought out, is very submissive under restraint and discipline. That is very striking of case No. 2 showing that this particular individual acquired a position in the naval service as a non-commissioned officer. The moment he was discharged from the service he at once came into conflict.

MULTIPLE MYELOMA. REPORT OF A CASE.*

WILLARD R. WIRTH, M. D.,†

NEW ORLEANS.

Multiple myeloma is a disease of the bone marrow, which, while rather infrequent in occurrence, has caused considerable discussion in the literature because of its unusual manifestations and because it still remains a problem. Ewing¹ defines the condition as a "specific malignant tumor of the bone marrow arising, probably, from a single cell type and characterized by

*Read before the Louisiana State Medical Society, New Orleans, April 14-16, 1931.

†From the Department of Medicine, Tulane University, and the Medical Service, Charity Hospital, New Orleans.



Fig. 1. Lateral roentgenogram of skull of case reported showing moth-eaten appearance of multiple myeloma. Notice the numerous foci and the thinning or even absence of both tables of the cranial bones at many sites.

multiple foci of origin, a uniform and specific structure composed of plasma cells or their derivatives, rare metastasis, albumosuria and a fatal termination."

Because multiple myeloma is of interest from a diagnostic standpoint to the clinician, roentgenologist, and pathologist, the following case is presented.

CASE REPORT.

J. H., a white male native of New Orleans, aged 51 years, was first seen in the medical clinic of Charity Hospital, March 10, 1930, complaining of pain in the back and lumbar region. The history obtained from him at that time was that this pain had been present for the previous two months, associated with shooting or lancinating pain in the left leg. He was unable to voluntarily raise his left leg over the right leg without assisting this manoeuvre with his hands. There was also difficulty in walking. Three large "lumps" were present on his head which he stated had appeared only in the previous six weeks. One of these, over the occipital region, was the size of a hen's egg and was not tender to pressure. There was also a soft spot or apparent defect in the bony surface over the left parietal bone near the mid-line.

A closer examination of the head on March 17, 1930 showed four or five tumors over the skull, ranging in size from that of a pecan to a lemon. These were soft and somewhat fluctuant. Around the base of one of these tumors a definite bony margin or rim could be palpated. At

another point over the skull a definite "soft spot" or depression could be felt, about the size of a dime. There was no tenderness anywhere over the skull.

The patient was complaining bitterly of pain and was admitted to the ward of Charity Hospital March 19, 1930 with the diagnosis of multiple myeloma. The complete history and physical findings noted in the clinic and upon admission to the ward are as follows:

About 6 or 7 months previously, while the patient was suffering from a cold, he awakened one morning with a sharp pain in the left posterior-lateral chest. This was considered by him to be a pleurisy pain. There was also a sharp pain in the left shoulder on motion. This pain was of an acute nature for about one week in these locations. It seemed to move to the right side of the chest and persisted there acutely for about a week. The pain next passed to both hips, and then both thighs, and when seen, the pain seemed to be most severe in the knees and legs. He was unable to move the left arm normally, that is, all upward motion was limited and painful. The patient was still able to walk, but with difficulty. He had to pull himself up from a sitting position, stand still until he became accustomed to the position, and then start walking, this being of a hobbling nature. The left leg was weak, and for about 4 months he had to lift his left leg when attempting to cross it over the opposite knee or elevate it as in going up steps. He could not sleep on his side because of the intense aching pain that was caused in the

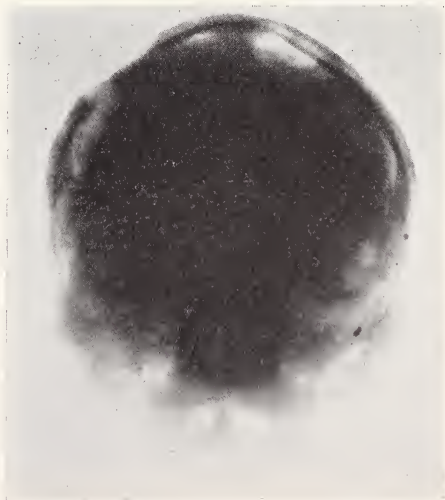


Fig. 2. Anterior-posterior roentgenogram of skull showing numerous foci of multiple myeloma.

hips and lower extremity. The pain in the calf of the leg was what he termed "a real tired feeling." The pain in the left chest had been present the previous winter, disappearing during the summer, but returned this winter, and the patient felt that this had some connection with the present condition, and tended to date his trouble from this time. Two months previously, a lump had started on the back of the head, which took about two weeks to attain its present size. Soon some lumps appeared on other parts of the head, especially on the front, taking about two weeks to attain their full size. During the previous six weeks, these masses had not increased in size. They were not painful except on very firm pressure. The appetite had always been good, no indigestion. Bowels had not been moving normally, he always had to take medication. He had lost about 20 pounds in the past 6 months, that is, since the onset of his illness. Coughing and sneezing caused much pain in the various regions, but especially in the hips. At the time of his admission, his chief pain seemed to be in the region of the left posterior chest, and was of a constant stinging character, just as if it were raw. Respiration had no effect upon it. There were no symptoms referable to the circulatory or nervous systems, and no history of any trauma.

Past History.—He had had measles and mumps, but no other serious illnesses until the present trouble. However, he remembered peculiar pins and needles sensations in the left leg which started about two years ago, after prolonged sitting. *Family History.*—His father died at 67 years, cause unknown. The mother died at 62 years, possibly of nephritis. Three brothers and

two sisters were living and well. *Marital History.*—He had been married 26 years. He had one child 25 years of age. His wife had never been pregnant again. He stated that they could not afford to raise any more children. *Social History.*—The patient had been a street sweeper for the previous 8 months. Aside from the fact that he had been exposed to all sorts of weather and usually had a cold, there were no other relevant facts. *Physical Examination.*—A white male, aged 51 years, weight about 120 lbs., height about 5 feet 9 inches. He was emaciated, weak and walked with some difficulty and fear of falling. There were numerous masses on the head, the largest being over the occipital region. The skin was fair, color fairly good, warm, dry and elastic. There was a peculiar tumor mass of the right ileum. The pulse was regular, of good volume, 80 per minute. Some arteriosclerosis of the radials. Blood pressure: systolic, 150; diastolic, 100. *Head.*—There were several masses on the head, the largest being over the occipital region. These masses were not attached to the skin and definite bony disorders could be palpated around them. They were fixed and not pulsating. There were 8 such tumors over the head, of various sizes. *Eyes.*—The pupils were equal and reacted to light and accommodation. The conjunctivae were moderately pale. *Nose and Ears.*—There were no abnormalities noted. *Mouth.*—There were some carious teeth present and some pyorrhea. The mucous membranes were rather pale. *Throat.*—The tonsils were small and not inflamed. *Neck.*—There were no tumor masses or pulsations and no palpable lymph glands. *Thorax.*—The chest was flat with prominent ribs, clavicles, interspaces and supra- and infra-clavicular fossae. There was pain on palpation over both scapulae but no tumor masses. There was a tumor mass on the sixth left rib just outside the mid-clavicular line, firm and not tender. *Lungs.*—Expansion was equal on both sides. There were no abnormalities noted. *Heart.*—There was no apparent enlargement. No murmurs, irregularities, nor palpable thrills were noted. *Abdomen.*—The abdomen was slightly distended. There was no tenderness; no palpable masses or viscera. The crest of the right ileum was replaced by a tumor about the size of a large egg. This mass pulsated on coughing and gave one the impression of a herniation through the ileum with the soft parts and muscle pushed before it. *Genitalia.*—No abnormalities noted. *Extremities.*—Motion of scapulae and both shoulders caused some pain. There was also some pain in both hips on motion. There was tenderness over the dorsolateral region of both feet. No edema was present. *Reflexes.*—Patellars and biceps were active.

LABORATORY WORK.

Roentgenogram.—March 14, 1930. "Multiple

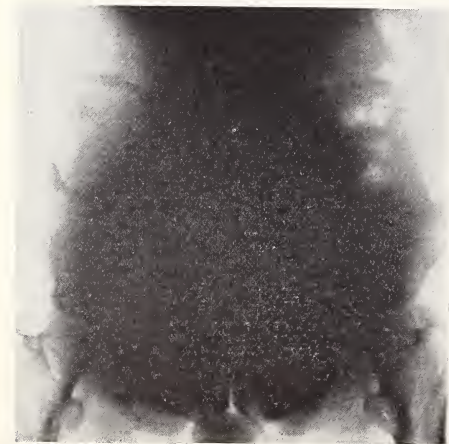


Fig. 3. Roentgenogram showing involvement of innominate bones with multiple myeloma.

central bone tumors (myeloma) in the skull, ribs, right scapula and innominate bones. Area of infiltration or reaction in the median lobe of the right lung." (Dr. Granger).

Roentgenogram.—March 26, 1930. "There is no evidence of pathology of the lumbar vertebrae." (Dr. Granger).

March 15, 1930. Blood Chemistry: non-protein nitrogen, 37.5; urea nitrogen, 18; creatinine, 1.41; dextrose, 82. March 20, 1930. Wassermann reaction, negative. March 28, 1930. Spinal fluid: Cell count, less than one (1); sugar, 75 mg. per 100 c. c.; globulin, negative; gold curve, negative; Wassermann, negative. April 6, 1930. Blood calcium 13.2 mg. (an increase of 42 per cent); phosphorus 3.4 mg.; total proteins 6.56 per cent. (Dr. R. Turner).

March 30, 1930. Urine: Color, clear, straw; specific gravity, 1020; albumen, heavy trace; sugar, negative; indican, negative; acetone, negative; diacetic acid, negative; microscopic, occasional hyaline casts. March 26, 1930. Urine: No Bence-Jones proteinuria. Subsequently, repeated examinations of the urine were all negative for Bence-Jones proteinuria. March 20, 1930. Blood: Erythrocytes, 3,580,000; leukocytes, 7,750; hemoglobin, 80 per cent; small lymphocytes, 12; neutrophils, 86; large lymphocytes, 2; basophils, 0; eosinophils, 0. March 24, 1930. Blood: Erythrocytes, 3,300,000; leukocytes, 8,500; hemoglobin, 8.6 gm.; hematocrit, 28.1 c.c.; corpuscular volume, 85; corpuscular hemoglobin, 26; corpuscular saturation, 31 per cent; small lymphocytes, 17; large lymphocytes, 10; eosinophils, 3; neutrophils, 69; myelocytes, 1. (Dr. Wintrobe). March 26, 1930. Eye ground examination, negative. (Dr. McNair). March 20, 1930. P. S. P., 40 per cent.

On April 15, 1930 a biopsy was done by Dr. A. Storck as follows: "Under local anesthesia, ½ per cent procaine, an incision was made over the tumor mass in the right frontal region extending down through the galea. A soft vascular maroon colored tumor mass about 2 cm. long and 1.5 cm. wide was found and was carefully freed up from the eroded edges of the skull. After the tumor was removed there was found to be a defect in the skull involving the entire outer table with a complete loss of the diploë and erosion of the inner table corresponding to the diameters of the tumor. The bone edges were rough and there was much bleeding after the tumor was removed. Bone bleeding was controlled for the most part by bone wax, and some soft part bleeding was controlled by means of the actual cautery. There was still a slight oozing which could not be controlled otherwise, therefore a plain dry gauze pack was left in place and the wound was allowed to remain open. Dressing applied." (Dr. A. Storck.)

Unfortunately the tissue apparently never

reached the Pathological Department as no report was rendered and subsequent inquiry into the matter revealed no evidence of this tissue in the records.

The temperature of the patient was normal during his stay in the hospital except on April 8, 1930 when it was 100.2° F. His respiratory rate remained between 20 and 24 per minute. The pulse rate varied between 88 and 128 per minute. He received only tonic treatment along with aspirin for pain and occasionally luminal as a sedative. He became progressively weaker. The masses on the head increased in size and the pain increased in intensity. On April 8, 1930 he complained of sharp pain in the upper left thigh and the possibility of a spontaneous fracture of the left femur was considered. Because he was very desirous of returning home and because of the unfavorable prognosis the patient was discharged April 21, 1930.

On June 11, 1930, seven weeks after the patient had been discharged from the hospital, he died. At the time of his return home he is said to have weighed about 118 pounds, and at the time of his death weighed only about 90 pounds. During this period at home he had considerable pain and required sedatives given hypodermatically, presumably morphine.

HISTORICAL.

Credit is given to v. Rustizky for the first histologic definition of the disease in 1876. He first applied the term multiple myeloma, but made no mention of Bence-Jones proteinuria. The first case of multiple myeloma was reported, however, by Dr. Wm. McIntyre, in 1845. This case was discussed clinically by McIntyre, while Bence-Jones examined the urine and reported the presence of a peculiar "animal matter in the urine," and Dalrymple performed the microscopical examination of the two ribs affected with the disease and wrote the article. In 1847 Bence-Jones read a paper before the Royal Society of London "On a New Substance Occurring in the Urine of a Patient with Molities Ossium." This substance has since been referred to as Bence-Jones protein. Kuehne rediscovered and described this substance in 1869.

It was not until 1889 that Kahler and Huppert reported a case of multiple myeloma from the clinical and chemical standpoints respectively, and discussed the relationship between proteosuria and pri-

mary bone disease. The disease is therefore often termed Kahler's disease. It is probable, however, that Kahler's description included other bone marrow tumors not considered myelomas today.

In 1897 Bozzola reported a case.

In a very complete article on the subject Geschickter and Copeland² have listed a bibliography in chronological order of all the case reports upon this condition compiled from a study of the literature from 1848 to 1928. Their analysis shows a total of 425 cases over this period.

ETIOLOGY.

The etiology of the condition is as obscure today as when first recognized. It is generally considered to be one of the neoplastic diseases, originating always in the bone marrow. Multiple myeloma is thought to be a neoplasia of the primary blood-forming cells, probably the myeloblasts. There still remains a considerable difference of opinion as to whether it is benign or malignant, and whether it is a hyperplasia or a true tumor (Kaufman³). There seems to be definite conclusive proof that the process is not due to an infection, by the experiments of Harbitz.⁷

The relation of trauma to the development of the tumor formation has been repeatedly considered in many case reports, and the consensus of opinion seems to be that the history of trauma in many cases probably acted only as a precipitating cause upon a disease process already present in the bone marrow in multiple foci. There is a history of trauma in about 20 per cent of the cases reported (Geschickter and Copeland²).

PATHOLOGY.

The tumor masses, when viewed at biopsy or autopsy, are soft, gelatinous masses, very vascular, and therefore red or reddish gray in color. Throughout the structure there are often dark red hemorrhagic areas. These tumors are confined to the bone marrow, and the bone cortex is thinned out or absolutely destroyed by pressure or a corroding or osteoclastic action at their sites. They cause deformi-

ties of the bones and skeletal system, therefore, and when sufficiently large produce visible palpable tumors. The tumors are usually confined to the osseous system, though similar growths have been reported as occurring in many other organs. This will be discussed later under metastases. Because of the action on the bones, spontaneous fractures are common.

Histologically, the cells of the tumor always resemble certain elements of normal bone marrow. These cells may be of several types, and this difference has accordingly lead to a classification of multiple myeloma dependent upon the predominating type of cell present. Kaufman³ accordingly gives the classification of 1. myelocytoma or myeloblastoma, 2. erythroblastoma, 3. leucocytoma, 4. plasmocytoma, and 5. lymphocytoma. Ewing¹ classifies them histologically as 1. plasmocytoma, 2. erythroblastoma, 3. myelocytoma, and 4. lymphocytoma. Many of the reported cases have shown the tumor cells to contain oxydase granules with the peroxidase stain, thereby apparently placing them in the myeloid or granulocytic group, while others have given a negative peroxidase stain to place them in the agranulocytic group. The relation of the neoplasia to the leukemias has been considered pro and con, and many observers would prefer to consider it as a pseudo-leukemia. Barr⁶ asserts that the disease is similar in many respects to leukemia. Symmers⁴ has expressed the opinion that the tumor cells always originate from the myeloblasts and suggests the term multiple myeloblastoma. On the other hand, Moore⁵ states that "The so-called plasma cell type of myelomata is not of myeloblastic origin and has no relation to the leukemic group." It can readily be seen that there is no uniformity of opinion as to exactly what position these tumors occupy histologically, although the pathologic diagnosis is apparently well established.

INCIDENCE.

Geschickter and Copeland,² in their analysis of the 425 case reports in the literature

from 1848 to 1928, found 80 per cent of the cases to be between the ages of 40 to 70 years, with 55 years the peak of the age incidence. There were only 5 cases under 35 years of age.

The condition was twice as common in males as in females.

The general incidence can be judged by the fact that there were 3 cases in 6,000 autopsies at Bellevue in 12 years and 4 cases in 9,000 autopsies at Johns Hopkins (Symmers⁴), (Vance⁸).

In the period from 1924 through 1930 there were seven cases of multiple myeloma, including the case reported, in the Charity Hospital of New Orleans out of 216,263 admissions. Only one of these cases had a positive pathological diagnosis.

LOCATION.

The tumors of myeloma may occur anywhere in the osseous system, and as the name indicates, usually occurs in several locations at the same time. There have been instances of single myeloma reported, however.^{12, 17} Only 5 such cases have been reported and all have been without autopsy.

The growth occurs most frequently in the flat and short bones.¹⁰ The ribs, sternum, vertebrae, pelvic and cranial bones are more frequently involved and the long bones less frequently. It seems to be the consensus of opinion and experience that the ribs, sternum and vertebrae are the most common sites.^{7, 4, 8, 11} The case reported is unusual in that the greatest involvement was of the skull, with no involvement of the vertebrae.

CLINICAL CHARACTERISTICS.

The condition is usually of an insidious onset, with deep seated pains referred to the bones usually. These pains are often vague and indefinite in the beginning. They will vary in intensity and character depending upon the location of the causative lesions. The outstanding symptom of pain is referred to the lumbar and sacral region in 70 per cent of the cases, to the chest in 20 per cent, the legs, arms and shoulders in 5 per cent, and to other parts in the other 5 per cent (Gaschickter²).

When the vertebrae are involved, as they often are early in the disease, the pains are referred down the legs, into the arms or around the chest because of pressure on the posterior nerve roots. The pains are usually periodic and rheumatoid, neuritic or neuralgic in character. They are described as lancinating or boring in character, are usually worse at night, and increased on motion. The pain may be of short duration and not very severe and in other cases may be severe and occur in paroxysms lasting four or five days, followed by a period of remission. The next occurring attack is usually of increasing severity.

These deep seated, continuous or intermittent, lancinating or boring pains often occur before any deformities or tumor masses are evident. Such pains should always arouse suspicion and necessitate a complete investigation.

In other cases the first indication of trouble is a fracture following a very minor trauma or following a natural motion. Such spontaneous fractures are particularly common in the ribs, sometimes following a sudden sneezing attack. Often this is the first symptom.

As the condition progresses multiple tumor masses become evident, and bony deformities occur, especially of the spine. Such a tumor or tumors may, however, be the first sign, unassociated with pain. The individual loses weight, develops a secondary anemia and usually some pulmonary changes, such as a chronic bronchitis or an emphysema. Definite neurological abnormalities may result due to pressure upon nerve trunks and roots, or even a transverse myelitis with paraplegia, etc. The progress of the condition is a downhill one, though there are often periods of spontaneous remissions of pain and other symptoms for several months or even a year. Even the tumors may decrease spontaneously in size.

In the late stages the bony deformities are marked, and there are severe roots pains and paresthesias. The patient is

weak, anemic and emaciated, and often completely bed-ridden because of the pain increased on motion, the fractures, and the spinal deformities.

The course is chronic over a period of from six months to two years, and is uniformly fatal.

The leading symptoms of multiple myeloma have been summarized by Geschickter¹² as to percentage of occurrence. It gives a definite idea as to the frequency of symptoms and their importance in diagnosis. This summary is herewith reproduced:

	Per cent
Fatal course	100
Skeletal tumors in trunk	90
Red cells under 4 million	77
Males	70
Lumbar pain	70
Nephritis	70
Bence-Jones bodies	65
Pathological fracture	62
Thoracic deformity	60
Bronchitis	55
Neural changes	40
Rib fracture	32
Myelocytes (in blood)	25
Gastro-intestinal symptoms	20
Trauma	20

BENCE-JONES PROTEIN.

This peculiar substance is found in the urine in about 65 per cent of the cases of multiple myeloma.² Its exact nature and mode of production is not understood. While the detection of Bence-Jones protein in the urine adds considerable weight to the diagnosis of multiple myeloma, and often is the first thing that leads one to even suspect such a diagnosis, still it occurs in many other conditions. These are all disease processes involving the bone or bone marrow, and it might therefore be said that the presence of Bence-Jones protein in the urine always indicates the presence of bone or bone marrow disease. Besides multiple myeloma Bence-Jones protein may occur in osteomalacia, bone injury due to gun-shot wounds, lymphatic leukemia, myxedema, carcinomatous bone metastases, chloroma and chondrosarcoma. It is often present long before the clinical presence of the tumors.

The presence of Bence-Jones protein in the urine is indicated by the formation of a precipitation or clouding on heating which precipitation disappears on continued heating and reappears on cooling. The precipitation of the protein begins at 55 degrees C. with an increased precipitation at 65 degrees C. Between 65 degrees and 80 degrees C. there is a gradual dissolving of the substance, and a reprecipitation on cooling. This reaction occurs regardless of the reaction of the urine. The test is simple, easily carried out, and quite conclusive when positive.

The exact nature of the substance has not been determined. By some it is thought to be an irritation product of the kidneys as a result of the excretion of certain toxic or waste materials formed by the disease process. Others state it is distinct from serum and tissue protein. It has been isolated from both the urine¹³ and the blood.^{14, 15} Jacobson has stated that it is of endogenous origin derived from the blood proteins through the action of abnormal cells or the bone tumor and is nearer the true albumins than the proteoses.

ROENTGEN RAY FINDINGS.

The roentgen ray is a most valuable aid to the diagnosis of the condition. Often the diagnosis is made by this means in cases otherwise unsuspected. The findings are apparently pathognomonic and confirm the clinical diagnosis. All cases of persistent pains referred to the skeletal system should have roentgenograms made, especially when such unexplained pains are referred to the back, chest, or radiate down the legs. Experience in these cases has emphasized the importance of roentgen ray studies in arthritic and neuritic patients.

The roentgen ray shows the presence of multiple tumors confined to the marrow canal with an outward extension and a thinning or complete destruction of the bone cortex. There is no bony overgrowth, differentiating it from other bone tumors. (Evans¹⁶). Multiple myeloma is not spheric nor does it have a clear center as a bone

cyst would, and differs from a true sarcoma which grows more rapidly, is more destructive, and shows an overgrowth of bone from the periosteum.¹⁷ The roentgen appearance is especially characteristic in cases of multiple myeloma involving the skull, showing a moth-eaten, punched out appearance.

DIAGNOSIS.

The diagnosis depends upon the finding of multiple bone tumors, either clinically or roentgenologically, in an adult with symptoms and a clinical course such as has been described previously. Bence-Jones proteinuria may or may not be present. Sometimes biopsy is a last resort in establishing the diagnosis.

The blood examination usually shows a secondary anemia which may become quite severe.

The leukocyte count ranges from 11,000 to 15,000 with from 1 to 10 per cent myelocytes and a relative lymphocytosis. The characteristic tumor cells have been reported as having been found in the circulating blood.²⁰

A nephritis is often present.

The six cardinal features entering into the diagnosis have been listed by Geschickter² as follows:

1. Multiple involvement of the skeletal trunk of an adult.
2. Pathological fracture of a rib.
3. Excretion of Bence-Jones bodies.
4. Characteristic backache with signs of early paraplegia.
5. An otherwise inexplicable anemia.
6. Chronic nephritis with nitrogen retention and low blood pressure.

While all of these are often present in one case, any combination of two or three of these may occur. A later observation by the same author² reports an unusual case of single myeloma with none of these features present. The roentgenogram made because of the complaint of pain and limping showed the bone marrow tumor in the left femur, and the diagnosis was confirmed at operation histologically.

As has been said before, the roentgen

ray examination is extremely valuable in the diagnosis.

The condition must be differentiated clinically from osteomyelitis, neuritis, lumbago, sciatica, pleurisy or sacro-iliac strain.

NEPHRITIS OR NEPHROSIS.

The presence of a nephritis in many cases of multiple myeloma (70 per cent) has led to a discussion as to whether the nephritis is part of the picture of the disease, is simply a coincidental complication because of the age incidence, or whether it is due to the irritation of the kidney produced by the excretion of foreign bodies. By some the condition has been thought to be a nephrosis. Hewitt¹⁷ is of the opinion that the passage of Bence-Jones protein does not damage the kidney. As much kidney damage has been observed in cases without Bence-Jones protein in the urine as in those showing the presence of this substance. Perla¹⁹ has recently described two cases associated with a severe nephrosis, characterized by a large amount of albumin and Bence-Jones albumose in the urine, low specific gravity, low concentrating capacity, a rise in non-protein nitrogen and little edema. He is of the opinion that this type of nephrosis is specifically associated in some way with the Bence-Jones albumosuria and myeloma and differs from the arterio-sclerotic kidney pathology often present independent of the myelomatous condition and due to the age group. Both of these may be present in the same patient. The nephrosis he describes differs, as can be seen, from the idiopathic or lipid nephrosis, and is associated with tubular destruction in the cortex and medulla of the kidney with true renal insufficiency.

It seems probable that the nephritis present in so many cases is really only a coincidence, with no relation to the disease. Future observations in a series of cases will be necessary to determine whether Perla's view is correct.

CALCIUM METABOLISM.

Because of the location of the disease and the marked destruction of bone which

occurs the calcium metabolism of many cases has been studied. Calcium deposits in various tissues of the body have been observed from time to time, notably in the heart, lungs, kidneys, spleen and pancreas. Beatherwick²¹ noted an increased excretion of calcium in the urine, thought to be a result of the bone lesions. An increase of the blood calcium has also been noted. This was found to be so in this case, as recorded. The blood calcium was increased 42 per cent of the normal, while the phosphorus and total protein remained normal.

PROTEIN METABOLISM.

There seems to be a definite increase in the plasma proteins in some cases. Whether this is due to an inability of the kidneys to properly excrete the excessive protein material produced is questionable. Perlzweig¹³ *et al* found the plasma proteins increased to 12.3 to 13.9 per cent or twice as great as the normal concentration (6.8 per cent). There was no increase of total blood proteins in this case.

METASTASES.

Multiple myeloma has usually been considered as consisting of multiple primary bone tumors which did not metastasize. Gradually there began to accumulate in the literature reports of cases with similar tumor masses present in various other viscera, in addition to those in the bones. These were not considered as true metastases by other observers, but were explained on the basis that these extra-osseous tumors were occurring in various portions of the vast hematopoietic system.⁴ The present consensus, however, is that this assumption does not explain all such cases, and the myeloma must metastasize, though rarely, and usually to some portion of the hematopoietic system, though equally as well elsewhere.²² Such metastases have been reported in the tonsil, liver, spleen, lymph nodes, adrenals, stomach, ovaries and muscular tissue.^{11, 22}

PROGNOSIS.

The prognosis in multiple myeloma is 100 per cent fatal. Cases of single myeloma have been reported as being cured

by the removal of the single tumor. The usual duration of the disease is from 6 months to 2 years.

TREATMENT.

The treatment is, of course, only symptomatic and palliative. Irradiation apparently has no effect on the course of the disease.

SUMMARY.

1. A case of multiple myeloma, with involvement of the skull, ribs, right scapula and innominate bones, negative for Bence-Jones proteinuria, and fatal outcome in less than one year, is reported.

2. The skull showed the greatest involvement in this case, with no lesions in the vertebrae.

3. The blood calcium was increased to plus 42 per cent.

4. Illustrations are shown of the roentgenograms of the involvements.

5. The knowledge of the disease is reviewed and discussed.

BIBLIOGRAPHY.

1. Ewing, James: *Neoplastic Diseases*. W. B. Saunders, Phil., 1928.
2. Geschickter, C. F., and Copeland, M. M.: Multiple myeloma. *Arch. Surg.* 16:867-863, 1928. (Complete bibliography).
3. Kaufmann, E.: *Text Book of Pathology*. P. Blakiston's Son and Co., Phil., 1929.
4. Symmers, D.: The multiple myelomata and their ability to metastasize. *Ann. Surg.* 67:687-696, 1918.
5. Morse, P. F.: The peroxidase reaction in three cases of multiple myeloma of the bones with remarks concerning the nosological position of these tumors. *J. Cancer Research*, 5:345-371, 1920.
6. Barr, D. P.: Multiple myeloma. *Ann. Int. Med.* 1:884-889, 1928.
7. Oftedal, S.: Multiple myeloma. Report of a case. *J. A. M. A.*, 77:1547-1548, 1920.
8. Vance, B. M.: A case of multiple myelomata, with a discussion as to its nature and origin. *Am. J. Med. Sc.* 152:693-714, 1916.
9. Rosenbloom, J.: Multiple myeloma, review of history of Bence-Jones protein and multiple myeloma with complete bibliography. *Med. and Surg.* 1:257-277, 1917.
10. Lewis, D.: Multiple myeloma. *Internat. Clin.* 1:157-161, 1927.
11. Nelson's Loose Leaf Surgery, 2:57, 1927.
12. Geschickter, C. F.: Multiple myeloma as a single lesion. *Ann. Surg.* 92:425-433, 1930.
13. Perlzweig, W. A., De'rue, F., and Geschickter, C.: Hypertroteinemia associated with multiple myelomas. Report of an unusual case. *J. A. M. A.* 90:755-757, 1928.

14. Jacobson, C.: A case of multiple myelomata with chronic nephritis showing Bence-Jones protein in urine and blood serum. *Jour. Urology*, 1:167-178, 1917.
15. Short, J. J., and Crawford, J. R.: Bence-Jones protein in Blood Serum leading to detection of multiple myelomatosis. *J. Lab. and Clin. Med.*, 14:1092-1093, 1929.
16. Evans, W.: Multiple myeloma of bones. *Am. J. Roentgenol.*, 6:645-649, 1919.
17. Andrews, E. W.: Two cases of myeloma, *Surg. Clin. of Chicago*, 4:43-47, 1920.
18. Hewitt, L. F.: Urine proteins in nephrosis, pregnancy and myelomatosis. *Lancet*, 1:66-68, 1929.
19. Perla, D.: Nephrosis in multiple myeloma. *Am. Jour. Path.*, 6:285-298, 1930.
20. Beck, H. G. and McCleary, S.: Multiple myeloma with bone marrow plasma cells in the blood. Report of case. *J. A. M. A.*, 72:480-482, 1919.
21. B'atherwick, N. R.: Calcium and Bence-Jones protein excretion in multiple myeloma. *Am. J. Med. Sci.*, 151:432-436, 1916.
22. Pepper, O. H. P. and Pearce, Richard M.: Myeloma with metastasis to liver and spleen. *Jour. Med. Research*, 37:171-182, 1918.

DISCUSSION.

Dr. R. H. Turner (New Orleans): We are much in debt to Dr. Wirth for such a complete and well organized presentation of all the information, practically, concerning this fascinating disorder. Although it is an exceedingly rare disease, it is encountered occasionally and a study of these cases has been of great value in clarifying some of the ideas about inorganic metabolism.

The calcium metabolism, as you can easily understand, is tremendously disturbed. Within the course of a few months a large percentage of the bone is destroyed and must be gotten rid of, and of course most of it must be excreted through the urine.

It is interesting to note that this patient, and most of the patients who have been reported, suffer from chronic nephritis. That has been given as one of the diagnostic evidences of the disease. I don't know that the explanation for that is entirely clear, but recent experiments indicate that it is due to damage to the kidneys by the calcium.

As you know, you can cause wasting of bones and excretion of the calcium by giving large doses of an extract of parathyroid gland. Collip, who was the first to purify this extract, by giving this extract to dogs, found that after the blood calcium was kept at a very high level for a considerable time quite a good deal of kidney damage occurred and the dogs could be made to die of uremia.

Calcium in its state in the blood is unique among all the substances in the blood. We ordinarily think of the plasma as being an aqueous solution consisting of many substances. Of course,

that is true to a limited extent of calcium. However, calcium is a very insoluble substance, and it occurs in the blood plasma in a supersaturated state. There is actually more present than can possibly be gotten into solution in that amount of water or with the other substances that are present in the blood plasma. The fact is that the physical chemists are considerably disturbed to explain how there can be so much calcium as is ordinarily present in the blood plasma of a normal person.

In the case of such a condition as a multiple myeloma and the more recently discovered clinical entity of the hyperparathyroidism enormous quantities of calcium are present and the supersaturation is greatly increased. It is to be wondered whether the presence of so much excess of this insoluble substance in the blood plasma has not an injurious effect on other organs than upon the kidney.

The question of diagnosis has recently been introduced by the discovery by DuBois and his associates of New York of the clinical entity of hyperparathyroidism and overactivity of the parathyroid glands which show many of the clinical manifestations of multiple myeloma.

I should think that one ought to be very slow to condemn his patient to a fatal prognosis of multiple myeloma until he had been quite certain that the condition is not one of hyperparathyroidism. It is true that most of the cases of hyperparathyroidism which have been reported show visible or palpable enlargements in the region of the parathyroid gland. However, in the first case that was discovered there was no tumor of the parathyroid glands, and the overfunction was one of functional disorder rather than an organic one.

It happens that the prognosis in those cases is excellent if they are operated upon. Even the roentgenray diagnosis might offer some difficulty to the uninitiated. Many points of great interest of course remain yet to be clarified in this disorder.

Dr. Charles Geschickter (Baltimore, Md.): There is very little that can be added to such a complete presentation as Dr. Wirth has just given. However, I would like to call attention to some of the differential diagnostic points in multiple myeloma.

In the first place, one of the paramount features is the age distribution. Practically all of these patients are of advanced age and for that reason we should not have difficulty in distinguishing this disease from some of the conditions of parathyroidism which often occur after the age of sixteen in females or even when occurring in adults.

The multiple myeloma is a typically central lesion with punched out area and without evidence

of new bone formation. The bone tumors in parathyroid region are central but they tend to have some reossification about them and expand the bone without a tendency to perforate in the manner that the multiple myeloma does. They have a different distribution. They are generally in the ends of the bones and not restricted to the trunk in the manner that most of the multiple myelomas are. If occurring in the skull they are more apt to be in the region of the jaw than in the parietal and frontal bones where multiple myeloma is found.

Of course, there is also the question of the excretion of calcium which is increased in hyperparathyroidism, and the blood studies in true cases of parathyroidism show a higher blood calcium and a lower blood phosphorus than the disturbances in the multiple myeloma.

Another point I would like to mention is in regard to the treatment of multiple myeloma. Of course, most of these patients die, and when we originally studied these cases we took the point of view of treating them symptomatically only. That is rather an unfortunate viewpoint to take. A patient with multiple myeloma can be helped by the physician taking a more hopeful turn even though the actual course of the disease will not be changed.

In the first place, we found that roentgenray therapy is of more benefit than we thought at first, particularly in alleviating pain, and helpful after fixation of a pathologic fracture, in getting the fracture to heal or reunite.

Colley believes he has traced a case originally reported by Thomas in 1905 in which a verified multiple myeloma was treated by laminectomy for paraplegia and some of the tumor tissue removed from the spine. The paraplegia disappeared. Dr. Colley thinks the patient is still alive. I must say that this would be a very remarkable exception to the usual case of multiple myeloma which is dead within two and one-half years.

I want to call attention to an error in pathologic diagnosis that can be made. The multiple myeloma, is brought out, is usually a plasma cell type of tumor. There is a tumor called plasmacytoma which occurs in the nose, a sort of benign gran-

uloma, and patients with that disease do not die. Also, the case I reported as a single lesion occurring in multiple myeloma, which had none of the characteristic features of multiple myeloma except under the microscope it showed a crowding of plasma cells, is still alive after two years, and might be such a tumor. The fracture has healed and the patient is apparently in very good health, although it looked for a while as though he were going down hill and would probably die.

Certainly we know that a single lesion in the nose may be a form of plasmacytoma and is not to be confused with multiple myeloma.

I wish to say this is a remarkably clear and complete study that has been made and presented to us, and if we could only have all our rare diseases reported as often and actively as the cases of multiple myeloma have been we would probably be much further advanced not only in diagnosis but also in treatment.

Dr. Willard R. Wirth (closing): I especially want to state something that I was not able to bring up in the paper originally, and that is the occurrence of nephritis in these cases. Almost all of them have a nephritis.

It has been a question always as to whether or not the nephritis was simply a coincidental occurrence due to the age incidence of the disease itself, or whether the multiple myeloma had anything to do with the actual production of the nephritis.

On the other hand, other investigators have reported the presence of a particular type of nephrosis which they think is typical for multiple myeloma and one that constantly occurs even though in addition to the nephrosis there may be a nephritis later on. That, of course, is to be considered and investigated further.

I was particularly fortunate in having Dr. Geschickter discuss the paper. As you noticed, I quoted Dr. Geschickter quite freely. His articles are complete and authentic and one can hardly get into the subject at all without finding his work and information quoted profusely.

I am particularly glad he stressed the roentgenological differentiation of this condition from other similar conditions.

NEW ORLEANS

Medical and Surgical Journal

Established 1844

Published by the Louisiana State Medical Society
under the jurisdiction of the following named
Journal Committee:

S. C. Barrow, M. D., *Ex-Officio*
For one year: W. H. Seemann, M. D.,
Randolph Lyons, M. D., Secretary
For two years: John A. Lanford, M. D.
For three years: S. M. Blackshear, M. D.,
H. W. Kostmayer, M. D., Chairman.

EDITORIAL STAFF

John H. Musser, M. D. *Editor-in-Chief*
Leon S. Lippincott, M. D. *Editor*
Willard R. Wirth, M. D. *Editor*
H. Theodore Simon, M. D. *Associate Editor*
G. C. Anderson, M. D. *Associate Editor*
D. W. Jones, M. D. *Associate Editor*
Jacob S. Ullman, M. D. *Associate Editor*

COLLABORATORS—COUNCILORS

<i>For Louisiana</i>	<i>For Mississippi</i>
H. E. Bernadas, M. D.	J. W. Lucas, M. D.
Daniel N. Silverman, M. D.	L. L. Minor, M. D.
C. C. DeGravelles, M. D.	M. W. Robertson, M. D.
J. B. Benton, M. D.	Thomas J. Brown, M. D.
C. P. Gray, M. D.	Willie H. Watson, M. D.
J. H. Slaughter, M. D.	W. G. Gill, M. D.
D. C. Iles, M. D.	Jos. E. Green, M. D.
J. H. Landrum, M. D.	J. W. D. Dicks, M. D.
	D. J. Williams, M. D.

Paul T. Talbot, M. D. *General Manager*
1430 Tulane Avenue

SUBSCRIPTION TERMS: \$3.00 per year in
advance, postage paid, for the United States; \$3.50
per year for all foreign countries belonging to the
Postal Union.

*News material for publication should be received
not later than the twentieth of the month preced-
ing publication. Orders for reprints must be sent
in duplicate when returning galley proof.*

THE JOURNAL does not hold itself responsible
for statements made by any contributor.

Manuscripts should be addressed to the Editor,
1430 Tulane Avenue, New Orleans, La.

ROBERT KOCH.

At the meeting of the Berlin Physiologi-
cal Society on the twenty-fourth of March,
fifty years ago, one of the greatest contri-
butions to medicine was announced by
Robert Koch. The statement of this dis-
covery, whose semi-centennial is celebrated
this month, ranks as one of the greatest and
epoch making events in the history of med-
icine. The announcement of the discovery
of tubercle bacillus stimulated bacterial re-
search as probably no other possible dis-
covery could have done, so prevalent and so
rife was the disease and so great was the

interest in this scourge at this time.
Simultaneously in this same paper Koch
presented the four postulates that to this
day stand as the four foundations upon
which rests the science of bacteriology. The
organism must be present in all cases of a
specific bacterial disease; it must be recov-
ered in pure culture; it must cause the dis-
ease in susceptible animals; and it must
when reinjected into healthy animals re-
produce the same disease for successive
generations.

The discovery by Koch of the tubercle
bacillus represents still another instance of
the prepared mind, for Koch was by no
means a novice in bacteriologic science. For
ten years after his graduation from med-
icine he traveled the stoney roads of north-
ern Germany as a country doctor, but his
avocation was the study of bacteriology.
While still a country doctor he worked out
the life cycle of the anthrax bacillus and
promptly received recognition for the
splendid work. So enthusiastically was the
work received that his friends, particularly
Cohn the great botanist, in the early days
of bacteriology it was the botanists who
were primarily interested in the phenom-
ena of growth of microorganisms, were
able to place him in a position where his
wonderful talents could be devoted solely to
the studies that he had begun so auspicious-
ly. Koch had been spoken of in conjunc-
tion with Pasteur as the father of bacteri-
ology. Part of his fame and honor rest
upon the technical methods that he devised
for the identification of microorganisms.
He was the first to plate bacterial cultures,
the only method to this day with which
bacteriologists can successively isolate and
recover pure cultures of germs.

Koch soon became recognized as one of
the outstanding scientists in the world, and
recognition came to him wholeheartedly
and fully. Foreign governments asked and
received his help in the elucidation of their
local health problems and in the study of
disease in their colonies. As an example
of the reverence of which Koch was held in

the later years of his life by people throughout the world, the Japanese took a few of the hairs of his head and built around them a temple to his memory.

In 1890 he astounded the world by the declaration that he had discovered a cure for tuberculosis. Sad to say tuberculin has never fulfilled the hopes which Koch raised in the breast of humanity. In 1901 he announced that human and bovine tubercle bacilli were not one and the same, and although this dictum has been contradicted many times, the present day conception of tuberculosis holds that Koch was right.

Undoubtedly, the fiftieth anniversary of the discovery of the tubercle bacilli will be celebrated in a fitting way by many organizations interested in the problems of tuberculosis. It should not be forgotten that not only does the world owe a debt to Koch, the discoverer of tubercle bacilli and tuberculin, but also to this man who was responsible for the control of many other infectious diseases, not only from those due to bacteria, but those also due to other micro-organisms, a partial list of which includes such important diseases as typhoid fever, sleeping sickness, cholera, and the plague.

HEALTH IN 1931.

The past year has recorded the most remarkable health record for all time. While the data are not yet complete, from the reports that have been received so far from the Division of Vital Statistics, apparently there has never been as satisfactory and as low a death rate in the history of the United States as in 1931. New Orleans, Louisiana, and Mississippi have shared in this reduction of mortality rate, and not only have the deaths been less than any previous year, but the morbidity rate has likewise apparently been lower than for many years or any year. There has been no severe epidemic during the year 1931, and the controllable diseases, tuberculosis, diphtheria, whooping cough, puerperal conditions, and typhoid fever, have

been well controlled. Particularly satisfactory is the drop in the death rate for diseases of pregnancy and child birth.

Among the policy holders of the Metropolitan Life Insurance Company,* the death rate of cancer, diseases of the heart, diabetes, and automobile accidents have materially increased. These figures, while from a relatively small portion of the population, represent a satisfactory cross section of the country as a whole. The salubrious weather of the past year may have had something to do with the reduction of the pneumonia death rate; likewise it may possibly have some effect upon the diarrheal diseases of childhood; although it is more likely that the efforts of the public health agencies to protect the food and milk supply have been the most important factor in lowering this particular agent of death.

The mortality figures for 1931 indicate what is generally known, cancer and heart disease are on the increase largely because people live longer and to more advanced age than in the past. The high rate for diabetes is explained upon the basis that the diabetics who would have died prior to the production of insulin are now dying, though their years of life have been materially increased. The solution of the automobile fatalities problem has yet to be answered. As long as reckless, careless, and selfish driving is indulged in, so long will these deaths from automobile accidents yearly obtain startling figures. About 35,000 people died in 1931 in motor vehicle accidents.

The excellent health record for 1931 is all the more remarkable when it is recalled that there was considerable sickness the first two months of the year; greater in fact than for several preceding years. Added to this was the known increase in unemployment with the concomitant want, improper and often insufficient food and increased exposure to the elements.

*Statistical Bulletin, Metropolitan Life Insurance Co., 13:1932, 1.

HOSPITAL STAFF TRANSACTIONS

SURGICAL STAFF OF CHARITY HOSPITAL.

The regular monthly Staff Meeting of the Surgical Section of Charity Hospital was held on February 17, at 8:00 P. M. in the Nurses' Auditorium. The meeting was called to order by Dr. I. M. Gage, Chairman, 62 members being present. The minutes of the previous meeting were read and approved. There being no new business, unfinished business, or old business to be considered, nor any committee reports to be heard, the meeting passed to the scientific session, and the following cases were considered:

Case 1. White female, aged 42 years, admitted December 30, operated upon January 9, died January 27. Carcinoma of the right breast with axillary metastases. This patient presented a foul carcinoma mass verging upon ulceration, which was amputated with the radio knife. Did well until the eighth day and died of pneumonia. The patient's condition was poor before operation. No autopsy was permitted. Case was discussed by Drs. Gage and Lucien Landry, touching upon the indications for operations in cases such as this. Dr. Gessner brought up the possible occurrence of pneumonia following gas anesthesia. This was thought to have no higher incidence than when other types of anesthetics were used.

Case 2. Female, aged 34 years, admitted December 27, operated upon December 29, died January 6. Hyperplastic endometritis—chronic appendicitis. This patient had a history of a previous radiation with curettage. She had a hysterectomy, appendectomy, bi-lateral salpingectomy, and right ovariectomy. She did well until the eighth day, and then died very suddenly from what was considered a cerebro-embolism. No autopsy was permitted. Case was discussed by Drs. Graffagnino and Lucien Landry, and it was pointed out that such cases more frequently developed pulmonary than cerebro-embolism. Dr. Connell from the Pathological Section discussed the causes of cerebro-embolism, vegetative heart disease, patent foramen ovale and etc., pointing out the difficulty of the embolus passing through the pulmonary circulation.

Case 3. White female, aged 28 years, admitted January 22, operated upon January 27, died January 28. Admission diagnosis—incomplete abortion with mild bi-lateral salpingitis. Possible ectopic pregnancy—possible intestinal obstruction. This patient menstruated normally until November 10. On December 10 small amount of bleeding. Continued intermittently until January 16 when several large clots were passed. After this she flowed a little. On January 20 she was seized with severe pains in the abdomen and fainted. On admission on January 22 condition

appeared good. On January 23 the abdomen became distended and there was nausea and vomiting. Ectopic was then strongly suspected. On January 25 she was markedly distended and appeared anemic, nausea continued. Distention did not respond to treatment. The diagnosis was apparent on January 27 when the operation was performed and she died the following day. In discussing this case Dr. Tyrone stated that the original diagnosis was incomplete abortion with salpingitis. She had had eight criminal abortions. After admission she did not show signs of internal bleeding until the night before operation, and when operated upon was in a poor condition bordering on shock. Upon opening the abdomen it was found filled with blood. She was given transfusion, which was repeated that night. The tube was tied but the blood was not removed from the peritoneal cavity. The question comes up is it better to wait until the patient would be in a better condition or to operate upon making diagnosis. Dr. Loria compared this case to those of gunshot wounds of the abdomen where it is known that the cavity is filled with blood and operation seems imperative. The shock resulting from hemorrhage, hemorrhage must be stopped, and he considered time to operate is when the diagnosis is made, not later. Dr. Graffagnino stated that many years ago he had made a study of over 400 cases of ectopic pregnancy, and that 33 1/3 of these had been diagnosed as incomplete abortions.

Case 4. A colored male, aged 39 years, admitted on November 6, operated upon November 10, and died January 5. Admission diagnosis chronic appendicitis and chronic cholecystitis. This patient had a posterior gastroenterostomy with entero-enterostomy with Murphy button and appendectomy. He did fairly well after the operation, except pulse remained high and temperature up to 102°. About three days later he began vomiting and became distended. He developed infection in the wound and suppuration in various joints which had to be drained. The case was discussed by Dr. Gessner.

Case 5. White male, aged 16 years, admitted January 8, operated upon January 13, and died on January 23. Diagnosis, subsiding gastroenteritis and chronic appendicitis. Had admission temperature of 102°, which four days later became normal. After operation temperature again elevated, and remained so until the patient died, with the exception of one day when it reached normal. The pathological diagnosis was sub-acute and chronic appendicitis. The cause of death was general peritonitis. This case was discussed by Drs. Gessner, Loria and Gage, from the stand-

point of whether or not to drain in such cases and the advisability of the time of operation.

Case 6. White female, aged 36 years, admitted on January 3, operated on January 8, and died on January 11. Admission diagnosis, right ovarian cyst or abscess—chronic pelvic inflammatory disease—chronic appendicitis—appendiceal abscess. There was a large mass in the right side which was exposed and aspirated—was found to contain no pus. It was not thought to be acute. The tube, ovary, and appendix were removed. The patient did fairly well until January 11 when she went into a collapse with temperature 104°, pulse 108, respiration 26. This case was discussed by Drs. Moss, Loria, and Jacobs. Dr. Jacobs emphasized the importance of sedimentation test, particularly in cases of this type. No further deaths were considered. Dr. Gage requested any member of the Staff to present at the Staff Meeting interesting cases from their service, or those presenting difficulties in diagnosis. There being no further business the meeting adjourned.

HOTEL DIEU.

The regular monthly meeting of the Hotel Dieu Medical Staff was held January 18, 1932 with the President, Dr. Joseph A. Danna in the chair, and the Secretary, Dr. Julius E. Isaacson at the desk.

The Scientific Program comprised:

(a) A paper presented by Dr. Shirley C. Lyons on "The Treatment of Carbuncles." This paper is to be published in full in a subsequent issue of the Journal. It brought forth a discussion by the members as follows:

Dr. J. T. Nix reviewed his experience in treating carbuncles by vaccine and other methods, declaring himself opposed to surgery for carbuncles. He was amazed at the results of Dr. Lyons "revolutionary" treatment, but doubted its efficacy in dealing with streptococcal infections. He believes that in dealing with staphylococcus, gentian violet is almost specific, and the case should be hospitalized, for the transition from a mild to a very grave condition is rapid—often a matter of only a few hours. However, he acknowledged that should Dr. Lyons' treatment prove successful for all cases, hospitalization might not be necessary.

Dr. P. L. Thibaut recalled his personal experience with multiple carbuncles, which were treated by free incision and curettment, causing him intense suffering. The focus of infection was eventually found, and a tonsillectomy worked the cure. This was before the day of vaccines.

Dr. E. H. Walet upheld his belief in a simple incision, properly done as a helpful factor to re-

lieve pain and provide drainage, and so to expedite Nature's healing process.

Dr. Maurice Couret, Pathologist, spoke in brief as follows: "True carbuncles are never due to any other organism but the *Staphylococcus aureus*; if there is a streptococcus or pneumococcus present in a lesion resembling a carbuncle, it is either not one, or there is an intercurrent infection with staphylococcus.

We know that there are many different strains of the *staphylococcus aureus*, *e. g.*, hemolytic, non-hemolytic, etc., so that in any stock vaccine we are not certain that there is a strain corresponding to the one in the individual and consequently we frequently fail to get the best results out of the treatment.

I never advise the use of vaccines in acute infectious diseases, but Dr. Lyons is doing just this and getting results. The reason for these results is because while carbuncles are acute lesions, they are purely local, and as long as a lesion is a local one and not systemic, you may use vaccines with impunity. To prove this point, all that we have to do is to incise a carbuncle or any other local infection and observe the phenomena that follow, *e. g.*, malaise, fever, nausea, etc., telling us that we have spread the toxins and probably organisms to other parts, and that the immunity that was being established was purely local. Another evidence that the immunity is local in conditions of this kind is that one lesion will heal perfectly while others may break out in other parts subsequently.

The most important antibodies that are developed by the injection of vaccines made of so-called endotoxin-producing bacteria are bacteriolysins, opsonins, and non-specific bacterial protein antibodies. There are, of course, other ones produced, but these are the most important.

The action of vaccines is, of course, general, so that they stimulate all cells of the body to produce protective substances; so that the use of vaccines in carbuncles is intended, besides the healing of the local lesion, to protect the other tissues of the body against metastatic infections.

The dose of vaccines, whether autogenous or stock, should be regulated entirely by the local and systemic symptoms that follow the respective injections. It is never wise to give a second dose or increase the previous one as long as there are local or systemic symptoms present, or if the dose has produced too great a reaction. We should permit enough time between doses to give a chance to all the cells to react against the poison injected and prepare themselves for subsequent shocks.

(b) The second paper presented was one on "Spinal Analgesia," by Dr. Jerome E. Landry, gist of which follows:

In 1899 our own Professor Matas applied the first successful spinal anesthetic for hemorrhoids, using cocain. Dr. Chaissagnac, with his assistants, Drs. Signey Delaup and Paul Gelpi, and later Dr. Delaup and his assistants, Drs. Paul Gelpi and P. L. Thibaut used spinal anesthetics as early as 1900 and have used it almost exclusively ever since. Dr. Danna has been a persistent user since 1902. The two principal opponents of spinal analgesia during its early history, Drs. F. W. Parham and P. E. Archinard, chose spinal when it became necessary for them to undergo surgery; since then it has gradually increased in popularity. The writer has used it since 1906 for practically everything below the diaphragm.

Definition: Spinal analgesia is the method by which analgesia of part or all of the body is obtained by injecting an anesthetic solution into the subarachnoid space, while maintaining consciousness. The drug is quickly absorbed by the nerve roots—both in the spinal canal and for some 2 cms. beyond their exit. Analgesia occurs at once and cannot be diminished or increased except by a further injection. In no other way can so extensive an analgesia be produced by so small a dose of drug,—roughly 1 mg. per pound of body weight.

Drug: Stovain and tropococain, both popular for many years, are still used by a few. Apothecine, used as a substitute for these two during the World War, involves a complicated technic, but is still being used. Nupercain, I think, is dangerous because of its toxic properties. The writer has used neocain, procain, novocain, and for a short time epinocain. Novocain has proven the most ideal.

Technic: We give barital and morphine the night before the operation; in the morning, unless the operation is abdominal, a light breakfast; and 15 or 20 minutes prior to the operation, $\frac{1}{4}$ gr. morphine with scopolamine. The anesthetic tray is supplied with novocain solution, novocain crystals, spinal needle, 4 c. c. syringe, 2 c. c. syringe and iodine. The patient is turned on the side, or sits in crouching position, arching the back; injection is made in the interspaces—the 12th dorsal and 1st lumbar for high operations, or as low as the 1st and 2nd lumbar. After anesthetizing the parts, the needle should go in absolutely straight. About 2 c. c. cerebrospinal fluid is collected in which the crystals are dissolved, and this is put in the 4 c. c. syringe. (For gall bladder or stomach work, we never use more than 6 c. c. barbotage.) The injection is done rather forcibly; the head is immediately lowered below the pelvis, the patient dropped into Trendelenberg position and left there. Analgesia lasts $1\frac{1}{4}$ hours.

Advantages: Simplicity of technic; complete

relaxation (far greater than inhalation narcosis); easy abdominal closure; contraction of intestines into their place without the necessity of gauze packs; quiet respiration; infrequency of nausea and vomiting and post-operative distention; urinary retention no oftener than with other anesthetics; and, finally, complete absence of acidosis. It is particularly recommended following shock, in cases of crushing injury of lower extremities, and in operations below the diaphragm. Because of the break in the reflex arc occasioned by analgesia of the sensory nerve roots, the impulses originating in the operative area never reach the cord for transmission to the sensorium.

Disadvantages: (1) The anesthetic effect may wear off in long and tedious operations, in which case another injection may be made, or general anesthetic used. (2) Sometimes there is profuse defecation due to relaxation of the sphincter ani and tonic contractions of the intestines; however it is the anesthetic of choice for all rectal operations. (3) It is not safe for anything above the diaphragm.

Contraindications: Spinal anesthetic is contraindicated in cases of gastro-intestinal perforation and localized peritonitis, and for epileptic patients. Like inhalation anesthetic, it is contraindicated in extreme cardiac decompensation, acute central nervous system disease, brain or spinal tumor, neurosyphilis, septicemia. Localized abscesses or ulcers at the site of puncture prevent the introduction of the spinal needle.

Indications: The individual's adeptness is the most important factor in determining when spinal anesthetic should be used. It has been used for obstetrics; and one of its most valuable indications is in intestinal obstruction.

The blood pressure fall is often great—sometimes as much as from 180 to 70 or lower, but this should cause no worry if it is unaccompanied by pallor, sweats, or weakness; in such cases one must resort to further lowering of the head, intravenous infusion, adrenalin and other methods of resuscitation.

Conclusions: (1) Spinal analgesia is safe in high and low abdominal surgery provided the dose of drug, the method of injection, and the handling of the patient are correct. (2) It should not be given by one inexperienced in its use. (3) The fall of blood pressure should cause no worry. (4) It should not be used for surgery of the neck or thorax. (5) All extensive abdominal operations should be accompanied by inhalation of CO₂ and oxygen.

SOUTHERN BAPTIST HOSPITAL.

The regular Clinical Meeting of the Southern Baptist Hospital Staff was held January 26, 1932,

with Dr. Rena Crawford presiding. Thirty members of the staff were present.

The first presentation of the evening was by Dr. Ansel M. Caine, who presented recent and interesting developments in various types of anesthesia as observed by him on his recent visit to the hospitals of Toronto and Montreal, Canada.

The next presentation was a demonstration and discussion of the Friedman Modification of the Ascheim-Zondek Hormone Test for Pregnancy. This presentation was discussed by Drs. T. B. Sellers and E. Z. Browne, who emphasized its accuracy and valuable aid in a diagnosis of pregnancy.

The third presentation was that of one of the hospital cases which had come to autopsy. This presentation with autopsy specimens was generally discussed.

Dr. Arnold, House Officer, then presented the list of deaths with autopsies for the month of December. He also stated that 22 per cent of the cases dying in the hospital had come to autopsy and that this was well above requirements of the American Hospital Association.

This concluding the program, the meeting adjourned after the serving of refreshments.

Edwin H. Lawson, Secretary.

FRENCH HOSPITAL.

A regular meeting of the French Hospital Staff was called to order Thursday, January 14, 1932, Dr. H. B. Alsobrook presiding. The secretary read the reports of deaths and discharges for the previous month. Dr. P. Graffagnino discussed a death due to carcinomatosis of the gastro-intestinal tract. Dr. Socola also presented an interesting case of intra-cranial hemorrhage in a newborn. He stressed the value of giving blood intramuscularly and subcutaneously.

The chairman then named the following committees: Executive—Dr. P. Graffagnino, Chairman; Drs. W. Harris and L. J. Menville; Records—Dr. S. C. Lyons, Chairman; Drs. J. N. Ane and J. R. Grigg; Membership—Dr. M. J. Lyons, Chairman; Drs. J. P. Palermo and A. V. Friedrichs; Program—Dr. C. J. Brown, Chairman; Drs. N. J. Tessitore and D. N. Silvermann.

A motion was passed to have every other meeting consist of a business meeting followed by a round table discussion and the other meetings to continue with the customary scientific program.

Dr. G. C. Battalora then spoke on the "Management of Compression Fractures of the Spine." The symptoms of compression fractures of the spine are pains, persistent weakness, deformity, kyphosis. The latest methods of management of these fractures are (1) Arthur G. Davis' method, (2) the use of the Eradford frame, (3) use of four tractions.

There being no further business the meeting adjourned.

Cuthbert J. Brown, M. D.

VICKSBURG SANITARIUM.

The regular monthly meeting of the Staff of the Vicksburg Sanitarium was held on February 10. After the business of the staff and Reports from the Records Department and Analysis of the Work of the Hospital, the following Special Case Reports were presented:

(1) Cardiac Disturbance Associated with Substernal Thyroid Producing Pressure Symptoms.—Dr. L. J. Clark.

(2) Cholelithiasis with Obstructive Jaundice.—Dr. Walter E. Johnston.

Three Minute Reports on the Literature of the Month were made by Drs. G. M. Street; J. A. K. Birchett, Jr.; L. J. Clark; and G. C. Jarratt.

Selected Radiographic Studies were demonstrated as follows: (1) Fracture of Unciform; (2) Fracture of Cervical Vertebra (2 cases); (3) Maxillary and Ethmoidal Sinusitis; (4) Pneumonia (3 cases); (5) Phleboliths of Spleen.

The meeting closed with a lunch.

The next meeting will be held on Thursday, March 10.

KING'S DAUGHTERS' HOSPITAL.

The staff of the King's Daughters' Hospital, Greenville, met at the Hospital on January 13, and had supper at 7:00 p. m., followed by the regular order of business.

The following members were present:

Drs. Pegues, Eubanks, White, Wilson, Beck, Hirsch, Lucas, Hugh Gamble, Beals, Dickens, Montgomery, Lewis, Paul Gamble and F. M. Acree.

There was a discussion of the community hospital by the staff members in regard to the action to be taken in the contemplated introduction in the Legislature of a bill supporting the community hospital.

The meeting of the staff for February was moved up to February 3 instead of February 10, on account of the meeting of the Post-Graduate Medical Assembly at Memphis from February 9 to 12.

Under heading of "Hospital Staff Transactions" in the February issue of New Orleans Medical and Surgical Journal occurs the report of a case of "Primary Sarcoma of the Lung," reported at the staff meeting of the King's Daughters' Hospital, and credited to me. This is in error. The case was reported by Dr. E. T. White.

A case report by Dr. D. C. Montgomery was read on "Foreign Bodies in the Bronchi," discussed by Dr. Beals.

The following case report was read.

Abstract—Petit-Mal with Intestinal Toxemia as a Causative Factor.—Dr. G. W. Eubanks.

Modern pathology has taught us that epilepsy is not a separate entity, but in most instances, a syndrome which may result from a number of etiological factors. From personal observation, I have noticed that most cases of grand and petit-mal are gormandizers and big meat eaters. Ten per cent of early migraine develop epilepsy. Convulsions of infancy and early childhood frequently result from reflex irritability of intestinal parasites or a stomach full of undigested food. In migraine and asthma the condition of the gastro-intestinal tract and the character of the diet play an important part in producing an attack. There is a close kinship between migraine and epilepsy with a hereditary factor.

In the following case, without the history of migraine but with a past history of infantile convulsions and a later history of gastro-intestinal disturbances from the results obtained from diet, I think the gastro-intestinal tract was the chief cause of the attacks.

School girl, age 14, does good work in school. Usual diseases of childhood. Tonsils removed six

years ago. Menstruation normal. At six years of age had stomach trouble with slight convulsions. Vomited all food. Was on strict diet for some time. Has habit of clenching hands and other involuntary movements. Present trouble began one year ago with rigor or some kind of spell at night. Blind, feet cold, body hot. Vomited, did not lose consciousness nor froth at mouth. No setting of eyes nor rigidity of muscles. Occurred at 4 a. m. In bed one day. Felt good. Had three similar spells during the next two months, July and August. None during school months. One year later during vacation started having similar spells but much more severe. Called mother in distressed voice before spell began. Lasted about thirty minutes. Up next day feeling well. Mother thinks most of spells have come on after overeating. At this time B. M. R. minus 2. Urine normal. W. B. C. 7,250, Neutrophile 46, Lymphocytes 50. Total Red Cell count 4,570,000. Hemoglobin 66 per cent. Blood Pressure systolic 110, diastolic 75. Pulse 100. Tem. 98. Bowels regular, no headaches.

Put on restricted diet, no large meal at night, had no further recurrence of attacks.

F. M. Acree, M. D., Sect'y.

TRANSACTIONS OF ORLEANS PARISH MEDICAL SOCIETY

CALENDAR

- March 4—Pathological Conference, Hotel Dieu, 11 A. M. to 12 Noon.
- March 4—Physiology Seminar, Tulane Medical School, 5 P. M.
- March 7—Eye, Ear, Nose and Throat Hospital Staff, 8 P. M.
- March 9—Touro Infirmary Staff, 8 P. M.
- March 10—French Hospital Staff, 8 P. M.
- March 11—Pathological Conference, Hotel Dieu, 11 A. M. to 12 Noon.
- March 11—Physiology Seminar, Tulane Medical School, 5 P. M.
- March 14—ORLEANS PARISH MEDICAL SOCIETY. Joint Clinical Meeting with the United States Marine Hospital Staff, 8 P. M.
- March 15—Charity Hospital, Medical Section, 8 P. M.
- March 16—Charity Hospital, Surgical Section, 8 P. M.
- March 17—Eye, Ear, Nose and Throat Club 8 P. M.
- March 17—New Orleans Hospital Council, Touro Infirmary, 8 P. M.
- March 18—Pathological Conference, Hotel Dieu, 11 A. M. to 12 Noon.
- March 18—I. C. R. R. Hospital Staff, 8 P. M.
- March 18—Physiology Seminar, Tulane Medical School, 5 P. M.

- March 18—Mercy Hospital Staff, 8 P. M.
- March 21—Hotel Dieu Staff, 8 P. M.
- March 22—Baptist Hospital Staff, 8 P. M.
- March 25—Pathological Conference, Hotel Dieu, 11 A. M. to 12 Noon.
- March 25—Physiology Seminar, Tulane Medical School, 5 P. M.
- March 28—ORLEANS PARISH MEDICAL SOCIETY, 8 P. M.
- March 31—ORLEANS PARISH MEDICAL SOCIETY. Special meeting for Dr. S. A. Levine and Dr. M. C. Sosman of Boston.

During the month of February besides the regular meeting of the Board of Directors, the Society held one regular scientific meeting. The regular meeting scheduled for February 8 was dispensed with on account of conflict with Carnival.

On Monday, February 22 there was a symposium on Diphtheria Immunization, when the following program was presented:

- 1—Dr. W. H. Robin—Toxoid Immunization.
- 2—Dr. Robert A. Strong—The Newer Conception of Diphtheria Immunization.
- 3—Dr. John A. Signorelli—The Economic Phase of Diphtheria Immunization in New Orleans.
- 4—Round table discussion followed the reading of these papers.

The attendance at this meeting was very good.

The following applications for membership are posted:

ACTIVE MEMBERSHIP—Drs. H. F. Brewster, A. H. Letten and Emile Naef, Robert R. Robinson and H. B. deB. Seebold.

ASSOCIATE MEMBERSHIP—Drs. W. J. Healey and Fred J. Wolfe.

INTERNE MEMBERSHIP—Dr. N. J. Bender.

On Monday, March 28 there will be a joint meeting of the Orleans Parish Medical Society and the New Orleans Gynecologica and Obstetrical Society. Dr. Irving W. Potter of Buffalo, New York will be the guest speaker. Dr. Potter is attending Obstetrician at St. Mary's Infants and Maternity Hospital; Attending Obstetrician at the Deaconess' Hospital, Buffalo City and Millard Filmore Hospitals. He is Consultant Obstetrician at the Lafayette General Hospital and the Salvation Army Home.

All members are invited to attend.

Dr. Fenno, Chairman of the Finance Committee for the entertainment of the American Medical Association, has sent out a request for funds. We expect between six and seven thousand doctors to come down to this meeting and quite a bit of money is needed to entertain these guests. We are glad to report that one half of the amount given to the Southern Medical Entertainment Fund was returned to the donors.

The second quarterly premium on our group insurance will be due March 5. There is a thirty day grace period after this date. Kindly send in your check at once.

TREASURER'S REPORT

ACTUAL BOOK BALANCE: 12/31/31	\$3,577.37
Receipts during January	2,052.54
Received for group insurance	703.35
TOTAL RECEIPTS	\$6,333.26
Expenditures	4,823.64
ACTUAL BOOK BALANCE 1/29/32	1,509.62

LIBRARIAN'S REPORT

One hundred and four books have been added to the Library during December bringing the total to 17,725. Of the new accessions 12 were received from the New Orleans Medical and Surgical Journal, 57 by gift, 31 by purchase and 4 by binding. New titles of recent date are listed below:

The Library staff has been very busy during the month. Two cases of journals have been prepared and sent to the bindery. Journals and books for 1926 have been shifted to the stacks leaving the five-year collection on file for immediate use in the Reading Rooms. In addition to calls for particular titles, material has been collected on the following subjects for members of the Society:

Absorptive Power of Colon.
Ophthalmology in History and Art.
Eyes in Character Analysis.
Leiomyoma of the Appendix.
Goiter in the Negro.
Toxic Dose of Chlorin in Solution.
Vicarious Menstruation.
Maggot Treatment of Osteomyelitis.
Absorbability of Catgut Suture in Tonsillectomy
Kendall's Medium for the cultivation of Bacteria.
Midwife Problem in the South.
Incidence and Mortality of Hydrocephalus Following Surgical Treatment of Spina Bifida.
Average dose of Sodium Acid Phosphate.
Skin grafting.

NEW BOOKS—JANUARY

Sanger—Practice on Contraception. 1931.
Goadby—Diseases of the Gums and Oral Mucous Membranes. 1931.
Coca—Asthma and Hay Fever in Theory and Practice. 1931.
Wood—Introduction to the Literature of Vertebrate Zoology. 1931.
Matas Birthday Volume. 1931.
Felderman—Human Voice. 1931.
Pelouze—Gonorrhea in the Male and Female. 1931.
Kessler—Accidental Injuries. 1931.
Rowe—Food Allergies. 1931.
Vaughan—Allergy and Applied Immunology. 1931.
Rukeyser—Doctor and his Investments. 1931.
Hertzer—Surgical Pathology of the Skin.
U. S. Public Health Service—Annual Report. 1931.
American Academy of Pediatrics. Transactions. 1931.
American Pediatric Society Transactions. 1931.
Medical and Chirurgical Faculty of Maryland—Transactions. 1925-29. 1930.
U. S. Navy—Report of the Surgeon-General. 1931.
American College of Surgeons—Yearbook. 1931.

H. Theodore Simon, M. D., Secretary.

LOUISIANA STATE MEDICAL SOCIETY NEWS

H. Theodore Simon. M. D.. Associate Editor.

PRESIDENT'S PAGE

Some months ago, in conversation with a physician who had practiced medicine in Louisiana for twenty-five years, he expressed the opinion that Organized Medicine was not worth while and made the statement that it had never been of any value, service, or good to him.

The statement was so at variance with the facts as all of us know them, that I was at a loss to understand what prompted the remark, and if it was a sincere expression, or not.

This doctor graduated from a very reputable school of medicine, he has had all the opportunities that other doctors in the average, have had, including perfect health, the physical ability to work. An inquiry into his history, from those who have known him and been associated with him, discloses the fact, that while he has held membership in his local society sporadically, he has never attended its meetings, or put into Organized Medicine, any effort, or contributed in any way to its up-building, yet he "gripped" because Organized Medicine had been of no good, or service to him.

In all of our associations in society, scientific, social, or what not, we profit only in proportion to what we contribute, and it must be remembered in our scheme of Organized Medicine, and its operation, membership and attendance in our local societies is no mean contribution, but rather a great one, and one all of us can afford and should make.

Such a statement as the one quoted above, can only come from ignorance, or because one has failed to do his part, or make his contribution.

In the field of Organized Medicine, there are two great groups or classes: first, those doctors wholly engaged in the solution of vexing theoretical and scientific problems: second, those comprising that larger group engaged in the practical field of clinical medicine where the application of these solutions are given the final and supreme test, therapeutic worth.

Organized Medicine has provided the arena, or court in which the final verdict, or decision is rendered. The local, state and national associations constitute the battle ground of opinions and final decisions upon which rests the ultimate practical use, or worth of the laboratory product of whatever nature.

Only by membership in and attendance on medical society functions, can the physician get first hand information on what is being prepared for his use, and the final verdict of those who have tried it, as to its real practical value.

The physician quoted above, had made a failure

in life financially and he is in a state of scientific decay. As an example, he is, in the eyes of the lay citizen, a liability to Organized Medicine; he is an asset to the profession only as an example not to be followed.

If Organized Medicine only served as a forum for the exchange of ideas and the broadening of one's vision, it would be well worth while; but to those who have remained steadfast in its ranks, its benefits are more than these. To enumerate them would be an unnecessary waste of energy and consumption of time.

We only have to glance backward over her history in a cursory way for evidence showing that all the blessings to mankind which have come as a result of medical progress, have come from the ranks of Organized Medicine, and could not have developed excepting by organized effort and co-operative experiment. We have only to picture the future with no organization of medicine, to realize its worth.

In Louisiana, only about half of the profession are members of the State Organization. Is it fair, we ask in all seriousness, for one half to carry on for the whole? Is it not a duty shirked, to remain outside the fold when so much is to be done?

The whole profession profits from the achievements of the half who are organized and at work in an effort to safeguard the interests of every reputable physician, whether he is a member of the State Association, or not.

To those who are not members of your local and State organizations, we appeal. Contribute your part; at least membership in and attendance on Organized Medicine's programs, will convince you that it is worthwhile. We can only get out of it in proportion to what we put into it, and to put into it one's effort brings satisfaction and a sense of duty performed, far greater than the gratification of any other benefit derived.

As a member, however, of our State Society for thirty years, and at this time, President, I am not unmindful of the fact that much is being neglected that needs attention, nor am I blind to the dissatisfaction which justly exists in certain quarters.

My only answer is that the problems are big and many, and time must be consumed in their solution. This time can be shortened and solutions hastened by a perfected organization and a united effort.

The pulse of the Parish units has not always been felt and properly evaluated by the state machinery. Closer contacts must be made, more sympathetic and interested concern must be shown in the individual and the local organizations than

is possible under present arrangements.

During the last ten months, an effort has been made to carry the office of President of the State Society to you. All sections of the State have been visited, the District Societies and many of the Parish Associations.

When our National Journal refuses to publish a communication from the President of a state society, with the only comment that it contains nothing new, we wonder if this is a policy and why, or an excuse, and if only things new are allowed in its columns.

When the official family of this body uses the lay press, which is freely donated, only for advice as to how to guard against measles, or mumps, when such vital matters to Organized Medicine need the attention of an enlightened public for their solution, or when our National Journal editorially condemns those of us who would urge attention to the economic side of medicine, with the admonition that we must live and pay taxes on tradition, one is constrained to rebel.

Many are rebelling and straying from the fold, many are refusing to come in, feeling that there is no sympathy for the individual who must labor and has no monthly salary unaffected by depression.

No doubt there are some in Louisiana who feel this way about the State Society, but this course is wrong and will avail no good. We must remain within the ranks and fight for the principles which we know are in the interest of medicine and the whole population. To those who are without the ranks, nothing they can say, or do, will have any effect. All must come in and lend a helping hand to promote the good and crush out the bad.

The American Medical Association meets in our State on May 9, and I would urge a campaign for the next two months, on the part of our local associations, to bring into our membership, every legally and ethically qualified physician; many need only to be asked.

Unfortunately, our Journal reaches only those who are members already; contact those who are not, and let's show the National meeting in May that we in Louisiana, do believe that "Organized Medicine Is Worth While."

S. C. Barrow, M. D.

NEWS ITEMS.

On January 21 a meeting of the New Orleans Ophthalmological and Otolaryngological Society was held at which meeting Dr. Charles A. Bahn was elected President and Dr. Monte F. Meyer was re-elected Secretary.

Monte F. Meyer, Sect'y-Treas.

Prof. Oscar W. Bethea, of the Graduate School

of Medicine of The Tulane University of Louisiana, addressed the East Mississippi Medical Society at Meridian, Miss., February 18, 1932, on "Diseases of the Chests."

The next written examination of the American Board of Obstetrics and Gynecology will be held in nineteen different cities of the United States and Canada at 2 p. m. on Saturday, March 26, 1932. The general, oral and clinical, examination will be held in New Orleans on Tuesday, May 10, 1932, immediately preceding the meeting of the American Medical Association. Reduced railroad fares will be available. For detailed information and application blanks apply to the Secretary, Dr. Paul Titus, 1015 Highland Building, Pittsburgh, Pennsylvania.

EAST AND WEST FELICIANA BI-PARISH MEDICAL SOCIETY.

Bi-Parish Medical Society met in the East Louisiana State Hospital. By motion Mrs. E. M. Levert, Counselor for Sixth District was given permission to organize an Auxiliary of the East and West Feliciana Parishes. Mrs. E. M. Levert was elected President, Mrs. J. W. Lea, Vice-President, Mrs. S. L. Shaw, Secretary-Treasurer.

Dr. L. D. Farragut of Clinton was elected a member of our Society.

Dr. J. H. Musser of New Orleans read a paper on Nutritional Diseases. Dr. L. J. Williams of Baton Rouge read a paper on Radium at the Menopause. Both papers were discussed by members present.

A vote of thanks was extended to Drs. Musser and Williams for the presentation of their most excellent papers.

Dr. Musser was elected an honorary member of our Society.

Physicians present were: Drs. Musser, Williams, Shaw, Miller, Smith, Levert, Daniel, Weis, Turner, Wilkinson, Sewell, Farragut, Blakeney, Lea, Robard, C. S. and E. M. Toler, Rev. Mr. Dameron, Mrs. Raby, Mrs. Berham, Misses Tate and Bond.

Society adjourned to meet first Wednesday in April, 7:30 p. m., in the East Louisiana State Hospital.

S. L. Shaw, President,
E. M. Toler, Secretary.

NOTICE.

In view of the fact that there has been considerable criticism among the profession that medical news and items of interest to the medical profession from this State have not been sufficiently carried in the Journal of the American Medical Association, an attempt will be made by the Secretary's office to collect and transmit all medical news to the offices of the American Med-

ical Association for their consideration and censure. We would, therefore, respectfully request that general medical news from the various members, especially those connected with hospitals and medical institutions, be sent to our office at 1430 Tulane Avenue, for proper assimilation and transmission. We would thank you for your attention, in order that our office may be able to function properly and more information of medical activities from this State be in the reading columns of the American Medical Association Journal.

GORGAS ESSAY CONTEST.

The fourth annual health essay contest for high school juniors and seniors, sponsored by the Gorgas Memorial Institute, Washington, D. C., will open in high schools on February 7, and close on March 15.

The subject of the contest is "Mosquitoes; Their Danger As A Menace to Health, and the Importance of Their Control." The donor of the prizes is Mr. Henry L. Doherty, President of the Henry L. Doherty Company, New York City, who has long been interested in this health problem.

High school winners will receive a handsome Gorgas medal, and will qualify for entrance in the State Contest. State Winners will be awarded \$10 in cash, and will qualify for entrance in the National Contest. Winner of first national prize will receive \$500 in cash, and a travel allowance of \$200 to Washington to receive the award; second national prize will be \$150 in cash, and the third national prize \$50 in cash.

For detailed announcement write the Gorgas Memorial Institute, 1331 G Street, N. W., Washington, D. C.

A. C. P. PRIZE TO DR. O. T. AVERY.

The American College of Physicians recently selected Dr. O. T. Avery of the Hospital of the Rockefeller Institute of New York City as the recipient of the John Phillips Memorial Prize for 1932, an annual award by the College in the sum of \$1500.00.

The Committee on the John Phillips Memorial Prize, through its chairman, Dr. James H. Means of Boston, recommends the award, "To Dr. O. T. Avery for the series of studies upon the Pneumococcus in which he has played a leading role, beginning with the discovery of the type-specific soluble capsular polysaccharides and culminating in the discovery of a bacterium producing an enzyme which splits the polysaccharides of Type 3 *Pneumococcus* in vitro, thus rendering it susceptible to phagocytosis and thereby protecting the animals infected with it."

The prize will be awarded at the Sixteenth Annual Clinical Session of the College will be held in San Francisco during the week of April 4, 1932.

Dr. Avery will deliver an address, "The Role of Specific Carbohydrates in *Pneumococcus* Infection and Immunity," at the Convocation on Wednesday evening, April 6.

HEALTH CONTROL MEASURES IN FLOODED AREA.

Floods along the Red and Ouachita Rivers and the lower Tensas Basin, in Louisiana, have driven from their homes approximately 20,000 people in 10 Parishes (Counties). The flood of 1927 demonstrated clearly the value of organized parish (county) whole-time health units and since that time a Unit has been established in every parish in the flooded area except one. The State Board of Health, therefore, at this time is able to meet and is meeting the present emergency through these organized units which may be mobilized in part or in their entirety for service in any parish or section where the necessity may arise. Refugee camps have been located at strategic points in the State and sanitary measures instituted and immunization of the refugees against smallpox, typhoid fever and diphtheria put into effect by the local health units under the direction of the State Board of Health. Constant supervision is being exercised in order to prevent an outbreak of any communicable disease. Up to this date, no epidemics have occurred and the State Board of Health feels that with the existing organization, any emergency which may develop can be adequately handled.

INFECTIOUS DISEASES IN LOUISIANA.

The United States Public Health Service, in collaboration with Dr. J. A. O'Hara of the State Board of Health of Louisiana, has issued weekly morbidity reports, which briefly abstracted give the following information. For the week ending January 16, there were reported 34 cases of pneumonia, 33 of pulmonary tuberculosis, 29 of diphtheria, 26 of scarlet fever, 21 of whooping cough, 14 of influenza, 10 of syphilis, and 10 of typhoid fever. The typhoid fever cases were reported from various parishes throughout the State. There were also reported 7 cases of smallpox, 2 of leprosy, and 1 of tularemia. For the week ending January 23, the following cases were reported in numbers more than 10. Thirty-five of diphtheria, 30 of pneumonia, 17 of syphilis, 15 of scarlet fever, and 10 of cancer. Of the unusual diseases, there were 2 cases of leprosy reported and 2 of tularemia. The warm winter has resulted in a very small number of cases of pneumonia, in this particular week the cases just being one-half of the five-year average. For the week ending January 30 there was a very large increase in the number of cases of syphilis, 101 being the report for this week. There were 58 cases of

gonorrhea also reported. In addition to these two venereal infections, there were also reported the following number of cases of reportable diseases: Forty-six of diphtheria, 29 of pneumonia, 22 of tuberculosis, 20 each of measles and whooping cough, 17 of scarlet fever, 19 of influenza, and 14 of typhoid fever. Five of the cases of typhoid fever came from the parish of Bienville, 4 from Lafourche, 2 from Caddo. There was also reported a case of poliomyelitis, and 1 each of tularemia, undulant fever and meningitis. The week ending February 6 is marked by the large number of cases of measles evidently appearing in epidemic form in some parish, as 97 cases were reported in this week. Thirty-one cases of pneumonia were also reported, while influenza and scarlet fever each had 23 reported cases. In addition, the following were reported: Sixteen of whooping cough, 17 of pulmonary tuberculosis, 10 of hookworm, and 21 of diphtheria. The report for the middle of February for the week ending February 13 showed the following: Sixty-seven of syphilis, 35 of diphtheria, 34 of gonorrhea, 29 of tuberculosis, 26 each of measles and pneumonia, 16 of scarlet fever, 14 of influenza, and 12 of chickenpox. Only 7 cases of typhoid fever were reported in this week, while 3 cases of cerebrospinal-meningitis occurred in Evangeline Parish and 2 cases of tularemia were reported from Rapides.

HEALTH OF NEW ORLEANS.

The Department of Commerce, Division of Vital Statistics, has reported upon the health of New Orleans for the last four weeks as follows. For the week ending January 16, there were 137 deaths in the City, 85 of which were in the white population and 52 in the colored, giving a death rate of 15.1 for the City as a whole, 13.2 for the white and 19.8 for the colored. The succeeding week the death rate was very much the same, there being 5 less deaths, distributed much as the previous week among the white and the colored. For the week ending January 30, there was some increase in the total number of deaths, there being 149, among the white 84 and the colored 65. The total death rate for this week was 16.4, with a white rate of 13.0 and a colored rate of 24.7. For the week ending February 6, there was a slight reduction in the total number of deaths, there being 141, with 79 white deaths and 62 colored. The death rate for the City as a whole was 15.5, for the white population 12.3, and for the colored 23.6.

DALLAS SOUTHERN CLINICAL SOCIETY.

According to present indications, all medical roads in the South will lead to Dallas for the week of March 28 to April 2, for the Fourth Annual

Spring Clinical Conference of the Dallas Southern Clinical Society. A handsomely illustrated "Prospectus" outlining the work offered at the Conference, was sent out in January to 21,000 doctors, not only in the South but also throughout the United States and foreign countries.

The annual Spring Clinical Conference is planned to carry out the purpose of the Dallas Southern Clinical Society, namely, "To make available to the medical profession of the South, the Post-Graduate teaching material of Dallas." In brief, twenty of the outstanding men of Medicine and Surgery in the United States, will be brought to Dallas to appear in addresses in general assemblies, and in hospital clinics, while a most comprehensive course of 96 hours of post-graduate instruction will be offered by the Society's local members, along with other features. Thus a registrant will have literally "brought to his door," right in the South, medical information and training which would require weeks and months of time, and thousands of miles of travel, to secure by other means.

The first three annual Spring Clinical Conferences at Dallas have been generously supported by Southern doctors, with a total registration of over 1100 in 1931. The 1932 session will be bigger and better than ever; more invited guests are being brought; more round-table luncheons will be included; the program has been wonderfully co-ordinated to eliminate conflicts between post-graduate courses and hospital clinics; and yet the all-inclusive registration fee has been kept the same—ten dollars.

The following distinguished guests will be heard in addresses, hospital clinics, and evening symposia:

Dr. Thos. McCrea, Philadelphia, Internal Medicine; Dr. Samuel A. Levine, Boston, Cardiology; Dr. Albert H. Rowe, Oakland, Allergy; Dr. Thos. R. Brown, Baltimore, Gastro-enterology; Dr. Carl A. Menninger, Topeka and Boston, Neuro-psychiatry; Dr. Udo J. Wile, Ann Arbor, Dermatology; Dr. W. McKim Marriott, St. Louis, Pediatrics; Dr. Lee W. Dean, St. Louis, Pediatric Otolaryngology; Dr. Joseph C. Beck, Chicago, Otolaryngology; Dr. Wm. L. Benedict, Rochester, Minn., Ophthalmology; Dr. Frank H. Lahey, Boston, General Surgery; Dr. J. Shelton Horsley, Sr., Rich-Chicago, Chest Surgery; Dr. Wm. O'Neil Sherrmond, General Surgery; Dr. Carl A. Hedblom, man, Pittsburg, Industrial Surgery; Dr. Paul Titus, Pittsburg, Obstetrics and Gynecology; Dr. Edw. H. Richardson, Baltimore, Gynecology; Dr. Herman L. Kretschmer, Chicago, Urology; Dr. Dudley A. Smith, San Francisco, Proctology; Dr. Merrill C. Sosman, Boston, Radiology; Dr. John A. Kolmer, Philadelphia, Clinical Pathology.

In addition to being heard in general assemblies

each morning, the distinguished guests will hold clinics in the afternoons at six allied hospitals.

UNITED STATES CIVIL SERVICE EXAMINATIONS.

The United States Civil Service Commission announces the following-named open competitive examinations:

Senior Medical Officer, Medical Officer, Associate Medical Officer—Cancer Diagnosis and Treatment.

Applications for the positions of Senior Medical Officer, Medical Officer, and Associate Medical Officer must be on file with the U. S. Civil Service Commission at Washington, D. C., not later than March 22, 1932.

The examinations are to fill vacancies in the United States Veterans' Administration throughout the United States. The entrance salaries range from \$3,200 to \$4,600 a year, less \$570 a year for quarters, full subsistence, and laundry when furnished.

WOMAN'S AUXILIARY NEWS.

It is with great pleasure that we present this month's report of our two youngest auxiliaries and it is with sincere pleasure that we commend them on their already excellent work, and trust that we will be able to print monthly some items from them.

THE WOMEN'S AUXILIARY TO THE CALCASIEU PARISH MEDICAL SOCIETY.

Our Auxiliary was organized less than a year ago. We have twenty members, sixteen town members and four parish members, with an average attendance about twelve. We have accomplished some very good work and each member is deeply interested in our activities.

We would like to pass on to our Sister Auxiliaries our "Silver offering plan" which swells our charity fund quite materially. After each monthly meeting we collect this free will offering, any amount from a few cents up is acceptable.

Our Auxiliary was the means of having a deformed child operated on, then following up the case for all care necessary. The parents of this child are very poor and ignorant and cannot speak a word of English. There are five children, three of whom are deformed, and the mother will soon give birth to another child. On Thanksgiving and Christmas we sent this family generous baskets of groceries, clothing and toys. We furnish milk regularly to two children in needy families. We are particularly interested in placing Hygeia in isolated sections of the Parish, also interesting our community as to its worth.

Our Auxiliary is small but there is a fine spirit of co-operation at all times.

Mrs. J. A. Crawford, Chairman of Publicity.

WOMEN'S AUXILIARY OF MOREHOUSE PARISH.

Our February meeting of the Women's Auxiliary met in the home of Mrs. Willie, of Mer Rouge, Louisiana. It has been our custom to meet in the homes of the doctors of the parish. Business, unfinished and new, was discussed by all members present with Mrs. R. B. Leavell, President of the Auxiliary, presiding.

It was decided at this meeting that the doctors' wives of the parish would entertain for their husbands at the hospital during this month and we look forward to a delightful evening together.

Miss Grisett, head of Bastrop General Hospital, made a fitting talk concerning clothing which had been given to worthy patients by the nurses at the hospital.

We enjoyed a lovely program and Mrs. Willie's beautiful home, which nestles back of some wonderful trees, for which Mer Rouge is famous, was in gala attire with gorgeous spring roses and other flowers. Her daughters rendered some charming musical selections. Felix Willie gave a saxophone solo which was enjoyed by all.

Delicious refreshments consisting of rose salad of the daintiest sort, sandwiches, salted nuts and punch, were excellent in every detail.

Those enjoying this delightful occasion were the doctors' wives, and nurses from the hospital.

Mesdames Owen—Bonita, Louisiana, and

Willie and Clark—Mer Rouge, Louisiana.

Miss Gertrude Stewart—Miss Grisett.

Mesdames R. B. Leavell, L. E. Larche, Smith I. Sims, Wirt Rodgers, N. P. Liles, J. Newton Jones, all of Bastrop, Louisiana.

Every one went away with the feeling that our Women's Auxiliary is quite worth while because it is a real pleasure to know each other better.

Mrs. T. Newton Jones, Publicity Chairman.

NEWS ITEMS.

In New Orleans, in spite of the lenten season, there are many informal gatherings where the chief topic of conversation is A. M. A., and the General Chairman, Mrs. Joseph Hume, 1427 Fourth Street, has divulged some of the many plans that are being promulgated for the entertaining of the coming convention starting May 9 to 13, inclusive, and we are expecting our Louisiana Parish Auxiliaries to aid and abet us in putting over the best ever.

So we are asking you all to keep in mind the time, May 9, the place, New Orleans, the Convention, The A. M. A.—and last but not least, the welcome that is waiting for each and every one of you.

From Shreveport we have had news of their two interesting meetings held in January and

February, and while we are unable to print all the hostesses and guests at these gatherings it is, with great pleasure we tell of their more than interesting and instructive talks.

At the January Meeting, Mrs. J. E. Rooks read a paper on "Medical Current Events." Miss Addie Webb lectured on "Poverty and Health," making her subject vivid with anecdotes from her wide experience as a social worker. These papers were well received and with the addition of the social hour always enjoyed; voted to have been an afternoon well spent.

The February meeting was held, February 10, at the Woman's Department Club. Mrs. John L. Scales, president, after hearing the reports of the various committees and conducting the usual business of the organization, introduced the guest speaker of the afternoon, Judge David B. Samuel, who gave a most delightful talk on "Civic Obligations to Minors," stressing the vital importance of education in the elimination of crime. The members were given ample opportunity for the "get acquainted" spirit which always prevails at each meeting by the social hour which followed the talks—and again Shreveport is to be congratulated for her good program and excellent attendance. In addition to these above attractions Mrs. Charles R. Gowen gave an interesting history of the life of Jane Todd Crawford and explained the object of the memorial fund which is to be voted on at the A. M. A. Auxiliary Meeting in May.

An interesting record of the work of the Woman's Auxiliary to the Orleans Parish Medical Society follows: Mrs. W. H. Seemann, Chairman, of the Philanthropic Committee has given a splendid report of its activities. Calls for help from every part of the City were investigated. Hundreds of articles of clothing were collected and distributed. The generous response to the calls of the Committee for garments were very gratifying and enabled them to clothe many destitute families.

The Committee for the collection of medical samples, with Mrs. E. E. Allgeyer, as Chairman, has collected from October 15 to February 1, 10,906 samples.

Physicians, in a Medical Center like New Orleans, receive thousands of samples yearly. A few they are able to use, but the greater part of them, in the past, were destroyed.

The desperate need for medicines in the Clinics

and in the Welfare work of this City has necessitated the collection of these samples. They are collected every second month and sent to the Child's Welfare and other organizations, who in turn, give to the Clinics the medicines, they themselves are unable to use.

However, owing to the lack of voluntary workers in this field, just one half of all the medicines in New Orleans are collected.

Mrs. E. E. Allgeyer, Publicity Chairman.

JAMBALAYA.

Next month we will print the names of the Chairmen of the different committees for the coming A. M. A. Convention with the hope that our readers will familiarize themselves with the different ones who are to be at their service during their stay in New Orleans. From Mrs. Milton P. Overholser our National Chairman of Press and Publicity comes these small reminders which should be accepted with great alacrity: To read the Bulletin of the American Medical Association in which appears monthly a letter from our National President-elect, Mrs. Walter J. Freeman, and if your husband does not bring home the Bulletin remind him of the pleasure he is depriving you.

When a book review is desired on the programs of Auxiliary Meetings it is gratifying to note what five books can be found fitting for that purpose. Suggestions are: The Medicine Man in Texas, Magnificent Obsession, Dr. Serocold, Victim and Victor, the Microbe Hunter.

Please keep in mind that the Woman's Auxiliary to the Louisiana State Medical Society meets in New Orleans the day before the meeting of the American Medical Association and will be on Monday, May 9, Mrs. Walther, our President, promises a concise, snappy meeting a program of which will be published in next month's journal under Auxiliary notes, and we ask you to make a great effort and be in New Orleans that date.

The President-elect of the National organization, the Woman's Auxiliary of the American Medical Association, Mrs. Walter J. Freeman, visited with Mrs. Joseph Hume from February 24-28. The arrangements for the entertainment of our guests in May were gone over fully and in detail with the chairmen of the various sub-committees.

Marguerite H. Musser,
Chairman of Publicity.

MISSISSIPPI STATE MEDICAL ASSOCIATION NEWS

L. S. Lippincott, Editor

Jacob S. Ullman, Associate Editor

D. W. Jones, Associate Editor

THAT WE MAY KNOW EACH OTHER BETTER

Thomas Melville Dye, son of the Rev. Thomas W. Dye and Ellen A. Dye, was born in DeSoto County, September 5, 1874. He was educated at Millsaps and Tulane, receiving his M. D. from the latter in 1900. He began the practice of medicine at Florence and lived a few years each, at Sherard and Longwood before settling in Clarksdale.

In 1901, Dr. Dye married Miss Mary Johnson of Jefferson County. They have six sons.

Dr. Dye was elected councilor of the first district of the Mississippi Medical Association in 1909, and served in that office until made president of the association in 1916. He was elected secretary in 1918 and has continued in the office ever since.

HISTORY

The following extracts from the history of the Mississippi States Medical Association are being printed in order that the members of the Association may make any suggestions or corrections desirable before final publication. Please read carefully and communicate with Dr. E. F. Howard, Historian, Vicksburg, if you feel that any changes are to be made.

1931—In the year 1930-31 routine work in organization was stressed, the only departure from the ordinary being that for the first time in the history of the Association the vice-presidents took an active part. They visited county societies, directed and encouraged county officers, assisted and advised councilors and had charge of all of the details of organization work. At the same time, and working to the same ends, the editorial board succeeded in building up a greatly increased interest in the Mississippi section of the official journal (The New Orleans Medical and Surgical Journal). To these two factors may be attributed the success of the annual meeting, at which for the first time, the registration was in excess of four hundred, a material increase over that of any previous year.

At this meeting an unusual amount of business was transacted by the House of Delegates, the chief items of interest being the creation of a committee to promote the establishment of state subsidy for small community hospitals, and resolutions instructing the Committee on Public Policy

and Legislation to follow the guidance of the American Medical Association in matters of National legislation.

FIRST BOARD OF MEDICAL CENSORS—

The Historian is indebted to Dr. J. D. Shields of Church Hill and the Misses Jones and Wellborne of the State Department of Archives and History for information in regard to the first Mississippi board of medical censors, chosen to decide who was eligible and fitted to practice medicine in the State in 1819. This board was made up of Dr. David Lattimore and Dr. William Lattimore, of Liberty, Amite County; Dr. W. R. Cox, of Jefferson County; Dr. John C. Griffith and Dr. John Kerr, of Adams County; and Dr. S. Gustine and Dr. A. Perlee, residence unknown. It is interesting to note that medical activities at the time evidently centered on Natchez, a time also when much of the remainder of the State was a wilderness.



T. M. DYE, M. D.
Clarksdale, Mississippi
Secretary
Mississippi State Medical
Association

CALENDAR

- March 1.—Claiborne County Medical Society, Port Gibson, 3 P. M.; Staff of King's Daughters' Hospital, Brooklyn, 7:30 P. M.
- March 2.—Staff of Chamberlain-Rice Hospital, Natchez; Staff of Vicksburg Infirmary, 7 P. M.; Staff of Rush's Infirmary, Meridian, 7 P. M.; Staff of Dr. F. G. Riley's Children and Maternity Hospital and Clinic, Meridian, 7 P. M.
- March 3.—Pike County Medical Society, McColgan Hotel, McComb, 7:30 P. M.
- March 4.—Natchez Medical Club, 1 P. M.
- March 7.—Staff of Jackson County Hospital, 7:30 P. M.; Staff of Meridian Sanitarium, 7:30 P. M.; Staff of South Mississippi Charity Hospital, Laurel, 7 P. M.; Staff of George C. Hixon Memorial Hospital, Electric Mills, 8 P. M.
- March 8.—Tri-County Medical Society, Copiah-Lincoln Junior College, Wesson; Staff of Natchez Sanatorium, 7 P. M.; Issaquena-Sharkey-Warren Counties Medical Society, Vicksburg, Y. M. C. A., 7 P. M.; Winston County Medical Fraternity, Louisville; Staff of Tupelo Hospital, 7:30 P. M.
- March 9.—Staff of King's Daughters' Hospital, Greenville, 7 P. M.; Harrison-Stone-Hancock Medical Society, King's Daughters' Hospital, Gulfport, or The Biloxi, 7:30 P. M.

March 10.—Staff of Aberdeen Hospital, 8 P. M.; Staff of Vicksburg Hospital, 6:30 P. M.; Staff of Vicksburg Sanitarium, 6:30 P. M.

March 11.—Staff of Anderson Infirmary, Meridian, 7 P. M.

March 14.—Staff of South Mississippi Charity Hospital, Laurel, 7 P. M.

March 15.—Northeast Mississippi Thirteen Counties Medical Society, Booneville, 2 P. M.; Staff of Natchez Charity Hospital, 8 P. M.; Central Medical Society, Jackson, 7 P. M.

March 16.—Clarksdale and Six Counties Medical Society, 7:30 P. M.; North Mississippi Medical Society, New Albany, 2 P. M.

March 18.—Natchez Medical Club, 1 P. M.

March 21.—Staff of South Mississippi Charity Hospital, Laurel, 7 P. M.

March 28.—Staff of South Mississippi Charity Hospital, Laurel, 7 P. M.

April 1.—Natchez Medical Club, 1 P. M.

April 4.—Staff of Jackson County Hospital, 7:30 P. M.; Staff of Meridian Sanitarium, 7:30 P. M.; Staff of South Mississippi Charity Hospital, Laurel, 7 P. M.; Staff of George C. Hixon Memorial Hospital, Electric Mills, 8 P. M.

April 5.—Staff of King's Daughters' Hospital, Brookhaven, 7:30 P. M.

April 6.—Staff of Chamberlain-Rice Hospital, Natchez; Staff of Vicksburg Infirmary, 7 P. M.; Staff of Rush's Infirmary, Meridian, 7 P. M.; Staff of Dr. F. G. Riley's Children and Maternity Hospital and Clinic, Meridian, 7 P. M.

April 7.—Pike County Medical Society, McColan Hotel, McComb, 7:30 P. M.

April 8.—Staff of Anderson Infirmary, Meridian, 7 P. M.

April 11.—Mississippi State Hospital Association, Jackson; House of Delegates, Mississippi State Medical Association, Jackson; Staff of Vicksburg Sanitarium, 6:30 P. M.; Staff of South Mississippi Charity Hospital, Laurel, 7 P. M.

April 12.—Mississippi State Medical Association, Jackson; Staff of Natchez Sanatorium, 7 P. M.; Winston County Medical Fraternity, Louisville; Staff of Tupelo Hospital, 7:30 P. M.

April 13.—MISSISSIPPI STATE MEDICAL ASSOCIATION, JACKSON. Delta Medical Society, Greenwood, 2 P. M.; Staff of King's Daughters' Hospital, Greenville, 7 P. M.; Harrison-Stone-Hancock County Medical Society, King's Daughters' Hospital, Gulfport, or The Biloxi, Biloxi, 7:30 P. M.

April 14.—MISSISSIPPI STATE MEDICAL ASSOCIATION, JACKSON.

Staff of Aberdeen Hospital, 8 P. M.; Staff of Vicksburg Hospital, 6:30 P. M. Homochitto Valley Medical Society, Natchez, 2 P. M.

April 15.—Natchez Medical Club, 1 P. M.

April 18.—Staff of South Mississippi Charity Hospital, Laurel, 7 P. M.

April 19.—Staff of Natchez Charity Hospital, 8 P. M.; Central Medical Society, Jackson, 7 P. M.

April 21.—East Mississippi Medical Society, Elks Club, Meridian, 3 P. M.

April 25.—Staff of South Mississippi Charity Hospital, Laurel, 7 P. M.

WOMEN'S AUXILIARY

The officers of the Women's Auxiliary of the Issaquena-Sharkey-Warren Counties Medical Society were installed on January 19, Mrs. Ewing F. Howard, retiring president, acting as installing officer.

The following are the new officers and committees:

President, Mrs. W. C. Pool, Cary.

Vice-Presidents, Mrs. H. S. Goodman, Cary; Mrs. J. B. Benton, Valley Park; Mrs. Edley H. Jones, Vicksburg.

Recording Secretary, Mrs. M. H. Bell, Vicksburg.

Treasurer, Mrs. Preston Herring, Vicksburg.

Parliamentarian, Mrs. E. F. Howard, Vicksburg.

Entertainment Committee: Mrs. A. Street, Mrs. C. J. Edwards, Mrs. B. B. Martin, and Mrs. W. H. Parsons, all of Vicksburg.

Tuberculosis Committee: Mrs. H. H. Haralson, Mrs. A. Street, Mrs. S. W. Johnston, and Mrs. M. H. Bell, all of Vicksburg.

Hygeia Committee for Issaquena and Sharkey Counties, Mrs. H. S. Goodman, Cary; for Warren County, Mrs. L. S. Lippincott, Vicksburg.

Membership Committee: Issaquena County, Mrs. J. B. Benton, Valley Park; Sharkey County, Mrs. H. S. Goodman, Cary; Warren County, Mrs. H. H. Haralson, Vicksburg.

Finance Committee: Mrs. I. C. Knox, Mrs. Preston Herring, and Mrs. George M. Street, all of Vicksburg.

Nurses Work Committee: Mrs. E. F. Howard, Mrs. Leon S. Lippincott, Mrs. B. B. Martin, and Mrs. W. H. Parsons, all of Vicksburg.

Special Committee: Mrs. L. J. Clark and Mrs. Edley H. Jones, both of Vicksburg.

Ada R. Bell, Secretary.

HOSPITALIZATION OF VETERANS.

The Board of Trustees of the American Hospital Association has recently sent to 5,000 hospitals of the United States a questionnaire on available beds in non-government institutions for the care of sick and disabled veterans. Dr. Bert W. Caldwell, Executive Secretary, Eighteen East Division Street, Chicago, urges return from the hospitals in Mississippi in order that the results may be tabulated and given to the authorities who are interested in this program. Direct and detailed information as to the number of beds available

for the care of the sick veterans in our civilian hospitals will then be available.

In transmitting the questionnaire, the Board of trustees gives the following important information:

AMERICAN HOSPITAL ASSOCIATION.

"To All Hospitals, Greetings:

"The American Hospital Association for the past three years has placed its co-operation at the disposal of the Federal Government, the Veterans' Bureau and the American Legion to the end that the veterans of our country's wars may be promptly provided with the best of hospital care and medical and nursing care.

"The Federal Government through the Veterans' Bureau and other departments has spent in excess of One Hundred and Fifty Millions of dollars in the building maintenance and operation of veterans' hospitals since the close of the World War. Notwithstanding the large expenditure, there are thousands of disabled veterans, throughout the United States, who are not being hospitalized because of lack of available beds in government owned and operated hospitals.

"The Government is faced with the expenditure of additional millions of dollars for new hospital construction, and consequent delay in the hospitalization of our veterans, if the present policy of hospitalizing our sick veterans in government hospitals ONLY is to continue.

"The American Hospital Association is convinced that every soldier on the waiting list for admission to the government hospitals can be hospitalized within twenty-four hours in a hospital that is approved by this Association, by the American Medical Association and the American College of Surgeons, if the Government and the Veterans' Bureau will send them to our civilian hospitals.

"The American Hospital Association adopted without a dissenting vote the resolutions which follow:

"WHEREAS, The Government of the United States has increased its provisions for the medical care of veterans by including patients disabled by causes other than those attributed to the hazards of service; with the evident intention of the Congress to insure to veterans opportunities for medical and surgical care equal to those enjoyed by any citizen:

"AND WHEREAS, By the natural growth and development of general civilian hospitals provision is made for the care of all medical and surgical classes of citizens in the vicinity of their homes, except in the smaller and rural communities, thus providing in a large part for the additional number of beds which the Veterans Bureau has declared must be provided:

"AND WHEREAS, The use of such civilian hospitals, as may be available for the diagnosis and treatment of injuries and illnesses will often prove advantageous to both patient and Nation, as in the following examples among others, namely:

"(a) The veteran may receive in an approved civilian hospital in his neighborhood the opportunity enjoyed by his fellow citizens for immediate treatment in the event of accident or acute illness without the necessity and danger of halting treatment for removal to the nearest government hospital;

"(b) If referred to a civilian hospital the patient would not be subjected to separation from family, friends, and business environment during the period of illness and incapacity, as well as in the event of death, as would often result from reference to a government hospital;

"(c) After the acute stage of illness he will not be required to remain at the hospital for necessary convalescent observation, prescription and care, instead of returning to his home, thus eliminating additional distress to himself and additional cost to the nation;

"(d) The patient will not be subjected to the dangers and delays of transportation; and the cost thereof to the nation will be avoided;

"(e) The patient will be afforded opportunities for special and consultive professional care through the facilities provided by many of the large civilian hospitals which may be found in his neighborhood;

"(f) The cost of maintenance and professional care in civilian hospitals should not exceed that of governmental hospitals, and the cost of construction and equipment of many large government hospitals, the needs of which will gradually disappear in the course of time, will be avoided;

"BE IT RESOLVED, That the Trustees of the American Hospital Association in interest of the veterans, and also for the purpose of avoiding unnecessary expense to the country and the public in general, earnestly recommend to the Veterans' Bureau, the veterans' organizations, the Congress and all others having the welfare of the veterans at heart a consideration of the facilities for the care of injuries and acute illnesses offered by available civilian general hospitals under conditions similar to those now enjoyed by veterans suffering from service disabilities, and further recommend that action be taken so that the use of available civilian hospitals, with provision for proper medical care, be the privilege of all veterans requiring general hospital treatment.

"The Association believes:

"1st. That the sick veteran of our wars should

be hospitalized, when possible, in an institution near his own home and where his family can give him the encouragement of their visits.

"2nd. That our veterans can be hospitalized in our non-governmental institutions at no greater cost to the government, and probably less than it is at present paying, and without the necessity of spending additional millions in new hospital construction.

"3rd. That the care which our hospitals give the veterans will be as efficient and as satisfactory as the care now being given in the veterans' hospitals.

"4th. That all of our hospitals will co-operate in spirit and in performance to the end that every veteran may receive hospital care, without a moment's delay, and that the care given will be as good as modern hospital practice can accomplish.

"The Association will soon be asked to provide the information covered in the following questionnaire. Will you send in your reply promptly, in order that it can be assembled for the information of the Government, the American Legion and members of the present Congress.

"Respectfully,

"Board of Trustees, American Hospital Ass'n.

"QUESTIONNAIRE

"1. Is your hospital a general hospital?.....

If a special hospital what class of patients does it admit?.....

"2. How many beds under normal conditions could you provide for the care of veterans?.....

(This question should be conservatively considered and answer based on the available beds you could constantly provide and meet the normal demands of your community.)

"3. What rate per day would you charge for your hospital service?

(This service to include board and room, acceptable ward nursing care, routine laboratory work, the paper work the government requires on all service cases, and the use of the operating room. It is to include all hospital services, except expensive laboratory work, the administration of expensive drugs or serums, special nursing, and medical and surgical service.)

"4. If the government desires could you provide a separate ward or wards for the care of veteran patients, with your present plant?.....

If you could, what would be the total bed capacity of these wards?.....

(The figure given in this answer should include the figure you give in answering question, No. 2.

"(Superintendent)

"(Name of Hospital

"(City and State)

LEFLORE COUNTY.

I am sending you some "overflow items" about

our Leflore County doctors.

Drs. J. D. Sweeney and T. Y. Fleming of Minter, are on dry land, but the surrounding territory is inundated.

Dr. E. R. Shurley, Money, is in the overflow and all his territory except the ridges.

Drs. W. D. Wilson, Porterwood and Dunlap at Schlater are on high ground, but surrounded with water.

Drs. T. B. Holloman and L. H. Hightower, Itta Bena, are not in the overflow, but the surrounding country is overflowed.

Dr. B. C. Crisler has moved to Aberdeen. Dr. B. B. Harper is in New Orleans taking a post-graduate course.

The doctors at Sidon, Morgan City, and Swifton are in the midst of high water and have to use boats.

North Greenwood and East Greenwood are under water two to four feet, not being protected by levees.

There are eight Greenwood doctors who live in North Greenwood, and have their offices in the business district of Greenwood which is not overflowed. So these may be classed as "wet and dry," wet homes and dry offices. They are Drs. J. C. Adams, S. L. Brister, Jr., W. A. Burkhalter, J. A. Crawford, E. W. Hunter, J. T. Kennedy, L. B. Otkin, and W. Y. Tabb. Most of these go to and fro by boat, wagon, or rubber boots. Dr. Burkhalter and wife are staying at Reiman Hotel during the high water. He says, "one good thing about high water, fishing will be fine this summer." Dr. Kennedy's wife and daughter are in West Point. Mrs. Hunter is at Cleveland with her daughter, Mrs. W. M. Keithley.

Dr. S. L. Brister, Jr., and wife and Dr. J. A. Crawford and wife have moved over to Greenwood proper to avoid the inconvenience of the flood. Drs. F. M. Sandifer, R. B. Yates, and W. E. Denman who live on river road have to "go home the back way" as this street is under now. Dr. George Baskervill, our President, is safe, at the Hotel Irving on the third floor, and the hotel is well surrounded with sacks of dirt. He says his "upper place is high and dry" at Sandy Ridge.

Dr. J. P. Bates got uneasy out in South Greenwood when back water began to creep up on his walk two feet. So he moved to the Bright Building, but the next day the pumps had done such good work his home escaped and no water could be seen in that section. The rest of the doctors are not affected.

We have no sickness here. People are enjoying the flood too much to think of being sick. Thanks to the state convicts, the business district was saved by their good work, so quickly and efficiently done.

W. B. Dickens, County Editor.

CHARITY HOSPITALS

The Committee of the Mississippi State Hospital Association on Charity Hospitals met at Vicksburg at the call of Dr. B. B. Martin, Chairman, on February 9. Those present were Dr. B. B. Martin, Vicksburg; Dr. J. A. Rayburn, Natchez; Dr. Roland Cranford, Laurel; Dr. E. E. Benoist, Natchez; and Dr. L. S. Lippincott, Vicksburg, President of the Association, ex-officio. A whole afternoon was given to a discussion and consideration of a plan to equalize and to raise the standards and efficiency of our charity hospitals without an increase in cost to the State. The following recommendations were made by the committee:

1. There shall be one general Board of Trustees for all charity hospitals of the State, this board to consist of three members to be appointed by the Governor. The members of the first board shall be appointed one for three years, one for four years and one for five years; thereafter members of the board shall be appointed for five years. Two of the members of the board shall be physicians, graduates of reputable and recognized medical schools, members in good standing of their local and state medical associations and generally in good standing with the medical fraternity. Members of the board shall have a knowledge of and experience in the conduct of hospitals. The members of the Board of Trustees shall be compensated for their services as the Legislature may see fit and their expenses incident to carrying on their duties shall be paid by appropriation by the Legislature.

2. Superintendents of State Charity Hospitals shall be appointed by the above Board of Trustees for indefinite periods under good behavior, and shall not be discharged from duty because of political or other reason where the service rendered and the accepted standard of medical and moral conduct has been maintained by the appointee. Superintendents may be removed only for cause and after due hearing. Superintendents shall be men of high moral calibre, high professional standing, shall be graduates of reputable medical schools, shall be members in good standing of their local and state medical associations, shall be in good standing with the medical fraternity at large, and shall have served for at least two years in some reputable hospital.

3. The salary of each superintendent of a charity hospital shall be uniform with that of the superintendents of all other charity hospitals of the State. It shall be sufficient to allow the superintendent to maintain his proper standing in the community, to attend necessary medical meetings, and to live in reasonable comfort. The superintendents of charity hospitals shall be allowed to do consultation and private practice

in the community where the hospitals are located when such practice does not in any manner conflict with their duties to the hospitals of which they are the superintendents.

4. A State Charity Hospital shall have:

1. An assistant superintendent.
2. A secretary.
3. A day supervisor of nurses.
4. A night supervisor of nurses.
5. A superintendent of nurses.
6. A surgical supervisor.

These positions shall be filled by the superintendent of the hospital. In the case of nurses, for the positions mentioned above, each shall be a graduate of a recognized training school for nurses, a member in good standing of the local and state nursing associations, and in general in good standing in the nursing profession.

5. The internes in all State Charity Hospitals shall be graduates of reputable medical schools and shall have passed satisfactorily the examinations of, and been licensed to practice in Mississippi by the State Board of Medical Examiners.

6. Undergraduate medical students working in charity hospitals shall be classed as externes and shall not perform major surgical operations or assume or be given the whole responsibility of caring for any case of a grave nature.

7. Visiting staff members shall be appointed by the superintendent of the hospital and shall work in charity hospitals by courtesy of the superintendent. They shall serve without pay.

8. The support of the charity hospitals shall come entirely from the State. No monies shall be collected from patients and no monies shall be received by appropriation of cities or counties of this or neighboring states.

9. In view of the fact that bed capacity of charity hospitals is necessarily limited and that all private medical and surgical institutions (hospitals, sanatoria, infirmaries, etc.) are constantly caring for charity patients, thereby causing a serious loss to these institutions, all private institutions of this nature are exempted from taxation.

10. No charity hospital of the State of Mississippi shall maintain a pay ward or private rooms for pay patients, and no monies shall be received from patients for any service rendered in charity hospitals, it being the conception that these hospitals are maintained for the indigent sick and not for those who can pay. The purpose and intent of the charity hospitals of the State of Mississippi is to take care of paupers, sick and in need of medical attention and having no visible means of support.

11. The certificate method of admission to charity hospitals now in practice is considered inadequate and should be abolished. In its place,

the admission of patients should be left to the discretion of the superintendents of these hospitals, whose duty it shall be to see that no one who is able to pay for medical or surgical treatment in any form shall be admitted.

12. All patients who have received the maximum benefit to be derived from care in charity hospitals and who are physically and mentally able to leave, but who have no means of travel to their homes, where such homes are remote from the charity hospital in which they have received treatment, shall be furnished with transportation to their homes by the sheriff of the county in which any given hospital from which the patient is discharged is located, the amount of such transportation to be refunded by the sheriff of the county from which the patient originally came. This is to be interpreted to mean only those patients who have neither friends nor family or other means of travel and is not to apply to patients indiscriminately. Moribund patients shall not be admitted to charity hospitals. Patients with tuberculosis shall not be admitted to charity hospitals except for diagnosis or surgical care, and no cases of chronic diseases shall be admitted where it is obvious that no improvement can be hoped for through hospitalization. In other words, the charity hospital is in no sense of the word to be used as a poor house or as a home for incurables.

13. State charity hospitals shall be required to meet the minimum standards for approval set by the American College of Surgeons and the American Medical Association.

14. The so-called out-patient departments of State Charity Hospitals shall be abandoned for the reason that these hospitals are for the State at large and because out-patients are derived largely if not wholly from the localities in which these hospitals are located.

15. Each State Charity Hospital shall conduct a training school for nurses. No applicant for training shall be received who is not able to submit satisfactory evidence of having completed the requirements of a full high school course of education. The curriculum of these training schools shall meet the requirements of the State Examining Board for Nurses.

NESHOBA COUNTY.

I am sure you are a little aggravated concerning my report from this County, Neshoba. If you want to know the truth, we have very little to report after the East Mississippi Medical Association meetings are reported, and that is the duty of the secretary. You will notice I was elected President of this Association, therefore, I am asking that Dr. A. L. Majure of Dixon, be ap-

pointed to take my place as reporter from this county.

J. S. Hickman.

MONROE COUNTY.

Your card asking for news items has just reached me. Perhaps I should have written you ere this, but only yesterday was I notified by our new President, Dr. W. C. Spencer, that I was to be retained as Monroe County's representative on your staff.

My communication will, perforce of scarcity of interesting news, be short this time. None of our doctors have been sick, none have married or been divorced, no youngsters have come to claim parental care at their hands. None of our group have gone to the Bermudas, Florida or California. Nor have they gone to Lake Placid for the winter sports. So you see life with us is rather drab and unexciting. The only thing we are concerned about is the recent move on Mr. Hoover's part to discover the cache in which our part of the one billion, three hundred million is so snugly resting. We had fondly hoped that it might not become necessary to loose this money that we have been hoarding, but of course, we must "do our duty though the heavens fall."

One little item of news is the fact that Dr. B. C. Tubb, who has been at Tulane for some months, doing post-work, will be back home within a few days. I trust that he will be a happier man than when he went away. I KNOW he will be wiser. But one of my early associates with a penchant for philosophy, once expressed himself in these words, "If ignorance be bliss, 'tis folly to be wise." I hope that Dr. Tubb may never regret the time he has given to intensive study and I further hope and believe he may be better equipped to serve his clientele and to teach those of us who have not gone, recently, to some source of useful knowledge. We shall be glad to have him with us again.

Now, Dr. Lippincott, replying to your inquiry as to my opinion as to whether legislation is necessary as touching doctors and their work, I will say that I hesitate to go on record further than to say conditions, as they now are, do not meet the requirements. Indigent sick in the part of the state with which I am familiar, get a poor break and the overburdened doctor bears the brunt of what help these poor unfortunates get. It is impossible to get them transported to hospitals where needed care can be given them. Those whose condition will permit a long trip usually object to leaving their friends to go among entire strangers. And we can not deny or dodge the fact that entire strangers can not be expected to give them the care and attention they so much

need. The home doctor is better able because of personal touch and faith to treat these unfortunate people, if he could only have hospital facilities at his command, than is the doctor in charge of the wards of the large charity hospital. And no doctor that I know will refuse the free service that these people must have (if they get any service at all). Politics, either state or local, should not enter into the solution of these weighty problems. The only question that I am willing to consider is that of money. What can we afford? And how can the best be done? I prefer to leave these questions to the men elected to work out all such matters. Just what laws to pass or what bills to propose I am willing to leave to the committee that represents our association.

These are indeed gloomy and troublous times, but let us be patient and learn to "labor and to wait."

G. S. Bryan, County Editor.

A BOOST.

Please permit me to say that as an editor you are bringing our Journal to the front. I read every word in the Mississippi Section particularly.

With best wishes I beg to remain,

Sincerely yours,

L. L. Minor, M. D.

SECOND COUNCILOR DISTRICT.

I am strongly of the opinion that our state association should get together on the group plan of insurance. In a recent conversation with a minister of the North Mississippi Conference, which has the group insurance, this minister states that you can pay the premium annually, semi-annually or quarterly. It is reasonable in price, safe and indeed necessary. I shall bring this important matter to the council at the April meeting.

Each organized county shall be entitled to send to the House of Delegates each year one delegate for every fifty members and for each fraction thereof.—By-Laws, Section 2, Chapter V. So Hinds County is the only county in the state entitled to two delegates.

The County Secretaries of this district, Drs. Little, Eason and Minor, are active in their duties and hope to have a better report this year than in 1931, although the depression is a self-evident fact.

The New Orleans Medical and Surgical Journal is the South's finest and one of the best medical magazines in America. The Mississippi news is very interesting and our editors are making it better monthly.

Death has taken a large toll of our fellow physicians during the past year. No one knows who

will be next. Wives sometimes, but widows never object to insurance. I hope we can arrange some good plan of group insurance.

I expect to be in Jackson April 12, 13, and 14, 1932. I trust we can have a large attendance and a most interesting meeting. President Culley and others are working hard to that end.

L. L. Minor, Councilor 2nd District.

WINSTON COUNTY.

Dr. W. W. Parks accompanied a committee to the Legislature at Jackson, Friday, looking after the state roads.

Dr. E. L. Richardson looks blue over the arrival of a "bull" calf from his registered cow recently. Don't worry, we have some Bull from high bred people.

The writer accompanied Mrs. Frank Reich to the Hospital on February 5, where the stork brought her a fine boy.

We note with pride the purposes and progress of our new Governor with his legislative body. We wish them well in ascending the great height in the "hard" task before them.

Our doctors are free from jealousy now. Our work is practically all for people who have no surplus of money. Hence we are not so anxious.

M. L. Montgomery, County Editor.

JACKSON COUNTY.

All is quiet on the Singing River so far as the doctors are concerned.

Our capable health officer, Dr. R. G. Lander, has carried on such a war against diphtheria and scarlet fever until it has disappeared.

We are glad to see Dr. S. R. Ratcliff, Vancleave, going right along in his usual way after a long illness.

Dr. J. N. Lockard is out again after a week's illness with the 'Flu.' He seemed to think that medicine was to be given and not taken.

S. B. McIlwain, County Editor.

PONTOTOC COUNTY.

This is to inform you that "your correspondent" from Pontotoc County is sick in bed with two or three rigors a day accompanied by high fever. Rather than be off the roll I am dictating this short message to you.

We have much to say up here about county or community hospitals. Since the northern half of Mississippi pays her full share of taxes it has remained a mystery why most of the money spent for charity hospitals should go to the Southern end of the state. Every county needs its own hospital with State aid. Of the present established institutions the one at Jackson might be retained as a central hospital for continuous chronic cases. As to the others, sell them or give them away

to get them off the hands of this State, if they cannot be used as the local county hospital.

I hope to be able to give you more news next month.

Dictated to Mrs. E. B. Burns.

E. B. Burns, County Editor.

PONTOTOC COUNTY.

News very scarce this month. Distressingly healthy for this time of year. We are having a few cases of small pox in the county and I have been kept pretty busy vaccinating for the past two weeks.

I think a number of our doctors are making arrangements to go to the Mid-South Post Graduate Medical Assembly which opens February 9.

NEW COUNTY EDITOR.

Dr. W. C. Spencer, President, Northeast Mississippi Thirteen Counties Medical Society, has appointed editors for each of the counties represented as follows:

Alcorn—Dr. W. A. Johns, Corinth.

Calhoun—Dr. F. L. McGauhy, Calhoun City.

Chickasaw—Dr. J. Rice Williams, Houston.

Clay—Dr. L. W. Dotson, West Point.

Itawamba—Dr. W. L. Orr, Fulton.

Lee—Dr. W. A. Toomer, Tupelo.

Lowndes—Dr. J. W. Lipscomb, Columbus.

Monroe—Dr. G. S. Bryan, Amory.

Noxubee—Dr. E. M. Murphy, Macon.

Oktibbeha—Dr. H. L. Scales, Starkville.

Pontotoc—Dr. R. P. Donaldson, Pontotoc.

Prentiss—Dr. R. B. Cunningham, Booneville.

Tishomingo—Dr. A. E. Bostwick, Iuka.

On January 17, 1932, Dr. Thomas A. Heath died at his plantation home at Shiloh, Issaquena County, Mississippi. He was born in Claiborne County July 14, 1854; came to Issaquena County in 1861, received literary education at Mississippi College, Clinton, Mississippi, and graduated at Hospital College of Medicine at Louisville, Kentucky in 1881; practiced medicine in Washington county, 1881-2, and Mayersville, Mississippi, 1883-4, and at Shiloh, Issaquena county from 1885 to date of death.

He was officer in the Methodist Church, Mason, Knight of Pythias, Woodman of the World.

He was for several years president of the Issaquena County Medical Society, an honorary member of the Mississippi State Medical Association, and an honorary member of the Issaquena-Sharkey-Warren Counties Medical Society.

He spent his whole life in the delta and was very efficient in the treatment of pernicious malaria having been especially successful in hematuria. He leaves a wife, one son and six grand-

children as well as a host of friends to mourn his loss.

At the beginning of this New Year, in the passing of Dr. Heath, it brought us new pain, new sorrow, and new sadness.

He didn't fall in Flanders Field
Where crimson poppies grew.
He wore himself out, waiting
On folks like me and you.

He has no cross on Flanders field,
Mid poppies' crimson hue;
His cross is in the aching hearts
Of folks like me and you.

Resolved that in the death of Dr. Heath this state and especially the community in which he lived and labored has lost one of its best beloved citizens.

Resolved that his society express its sorrow in the death of Dr. Heath. Resolved that a copy of these resolutions be furnished the press and a copy be forwarded to the family of the deceased.

W. C. Pool

H. H. Haralson

J. A. K. Birchett, Sr.

ISSAQUENA-SHARKEY-WARREN COUNTIES MEDICAL SOCIETY.

The regular monthly meeting of the Issaquena-Sharkey-Warren Counties Medical Society was held on February 9 at the Y. M. C. A., Vicksburg with twenty-one members present.

The scientific program included the following:

1. Carcinoma of the Cervix (lantern slides).—Dr. G. M. Street, Vicksburg.

Discussed by Drs. W. H. Parsons, H. H. Haralson, and E. H. Jones.

Dr. Street closed.

2. An Interesting Eye Condition.—Dr. M. H. Bell, Vicksburg.

Discussed by Dr. E. H. Jones.

3. Lobar Pneumonia—Case Reports—(lantern slides).—Dr. W. E. Johnston, Vicksburg.

Discussed by Drs. E. F. Howard, F. M. Smith, and H. S. Goodman.

Dr. Johnston closed.

The society endorsed the suggestion of Dr. F. M. Smith to the Mayor of Vicksburg that in providing work for the unemployed, according to a plan now being worked out, some antimalaria work be done.

Dr. F. M. Smith called attention to the difficulty existing in convicting illegal practitioners of medicine, and submitted two tentative amendments to the present law. The matter was referred to the Committee on Public Policy and Legislation, consisting of Drs. G. M. Street, I. C.

Knox, and B. B. Martin, for action.

On inquiry it was found that the report of the Committee of the Society appointed to investigate the activities of all agencies practicing medicine, that are financed from public funds, etc., and adopted at the meeting of the Society on August 11, was transmitted in accordance with a vote of the Society, on August 12, to the Executive Officer of the Mississippi State Board of Health and to the Director of the Issaquena and Sharkey Counties Health Department, and to the Director of the Warren County Health Department, but receipt of this report has never been acknowledged and the Society has received no information as to whether recommendations made in the report were being followed or not.

The Secretary was instructed to ask for information from the above named officers.

The attention of the Society was called to certain Legislation dealing with maternity deaths now pending before Congress and the Secretary was instructed to write to senators and congressmen at Washington, asking that they actively oppose the methods and expenditures proposed by such legislation.

The delegates from this Society to the Mississippi State Medical Association were instructed to present to the House of Delegates for adoption at its next meeting the following resolutions:

Whereas, eight-tenths of the members of the State Board of Health receive their appointments through the favor of this Association; and whereas, the State Board of Health is, therefore, to all intents and purposes, a Committee of this House, and as such is amendable to instruction and direction by this House of Delegates, therefore, the following requests are made to the Board:

1. That the State Board of Health shall render annually, in January of each year, to the Committee on Public Relations a complete report of all its activities during the previous twelve months.

2. That the Board shall not enlarge the scope of its activities without having previously received the consent of this House, except in case of flood, famine, epidemic or some similar unforeseen emergency.

3. That the Board shall not participate in matters of National Legislation except at the request of this House or of the American Medical Association.

4. That the Board shall approach the State Legislature, except in matters relating to the appropriation for its own support, only through the Committee on Public Policy and Legislation or with the approval of this Committee.

Resolutions upon the death of Dr. T. A. Heath of Shiloh were presented by a Committee consist-

ing of Drs. W. C. Pool, H. H. Haralson, and J. A. K. Birchett, and were adopted.

The meeting closed with a dutch lunch. The next meeting of the Society will be held at the Y. M. C. A., Vicksburg on March 8. The Committee in charge of the program consists of Dr. J. A. K. Birchett, Jr., Chairman; Dr. J. B. Benton, Valley Park; Drs. A. Street, C. J. Edwards, and J. A. K. Birchett, Sr., Vicksburg.

PRELIMINARY REPORT OF THE COMMITTEE ON CONSTITUTION AND BY-LAWS.

This report is being published now in order that the component societies may have the opportunity to study the changes in the constitution and by-laws that have been suggested to the committee. This will give the delegates ample opportunity to familiarize themselves with the subject, thus enabling them to discuss and to vote more promptly when the report is considered by the House of Delegates.

Art. III. Component societies shall consist of those medical societies which hold charters from this Association.

Art. IV. Sec. 2. The members of this Association shall be the members of the component medical societies.

Sec. 3. Guests. Any physician, not a resident of this state, may become a guest during any annual session upon invitation of a member of the Association, and shall be accorded the privilege of participating in all the scientific work of that session.

Sec. 4. Any component society may submit in writing to the Council, for presentation to the House of Delegates, the names of such physicians who have been members of the Association for twenty consecutive years, and who by reason of previous services to organized medicine, are worthy to be especially honored for election to honorary membership. Such honorary members shall be carried free of all charges on the rolls of the component societies and of the State Association.

Art. V. Sec. 2. The time and place for holding the annual session shall be fixed by the House of Delegates, but in emergencies, the Council shall have the power to fix, or to change, either the time or the place, or both, of the annual session.

Art. VI. Sec. 2. The President, the President-Elect, and the Vice-President shall hold office for terms of one year. The Secretary, Treasurer, Historian, Editor and Councilors shall be elected for terms of three years, the Councilors being divided into classes so that three shall be elected each year. All of these officers shall serve until the adjournment of that session at which their successors are elected.

Sec. 3. The officers of this Association shall be elected by the House of Delegates as the last

order of business on the last day of the annual session, following the adjournment of the general meeting, but no person shall be elected to any such office who is not in attendance on that annual session and who has not been a member for the past two years.

Art. VII. The House of Delegates shall be the legislative and business body of the Association and shall consist of (1) delegates selected by the component societies, (2) the officers of the Association and (3) all ex-presidents, provided they still be members of the Association.

BY-LAWS.

Chap. I. Sec. 1. The name of a physician upon the properly certified roster of members of a component society which had paid its annual assessment shall be prima facie evidence of his right to register at the annual session of this Association.

Sec. 2. Each member in attendance at the annual session shall enter his name at the registration bureau, indicating the component society of which he is a member, and he shall also indicate that scientific section, in the work of which he is most interested. When his right to membership has been verified by reference to the roster of his society, or by presentation of a receipt for dues from his county secretary, he shall receive a distinctive colored badge showing official capacity and evidence of his right to all privileges of membership at that session. No delegate, or other member, shall take part in any of the proceedings of an annual session until he has complied with the provisions of this section.

Chap. II. Sec. 2. Special sessions of either the Association or of the House of Delegates shall be called by the President at his discretion, or upon petition of twenty delegates or in emergencies by advice of the Council.

Chap. III. Sec. 1. The general meeting shall include all registered members and guests, who shall have equal rights to participate in the proceedings and discussions, but no member shall vote on any question coming before a section of the general meeting except those who have registered as members of such sections. Each section of the general meeting shall be presided over by its Chairman. The address of the President and the oration shall be delivered before the general meeting at such time and place as may have been arranged, and the entire time of the meeting shall be devoted to papers and discussion relating to scientific medicine.

Sec. 2. The order of exercises, papers and discussions as set forth in the official program shall be followed from day to day until it has been completed, but no section shall be allowed to place more than eight papers on its program and when a section program is not completed within the

time assigned it shall not be allowed to continue into that assigned to another section.

Sec. 3. No address or paper before the Association, except those of the President and Orator, shall occupy more than fifteen minutes in its delivery, except that guests may be allowed thirty minutes; and in discussion no one shall speak more than five minutes.

Sec. 4. With the exception of the invited guests, the essayists must be members of the Association.

Sec. 5. No name shall appear more than once as essayist at any annual session, nor more than once on the printed program to discuss a paper.

Sec. 6. No name shall appear two years in succession as an essayist on the printed program.

Sec. 7. All papers read before the Association shall be its property. Each paper must be read by its author, and must be deposited with the secretary when read.

Sec. 8. No author listed on the program who fails to read his paper at the session may be allowed a place on the program of the next annual session; but if the author, being unable to attend, shows his good intent by forwarding his paper to the secretary before the annual session, he shall not suffer this penalty.

Chap. IV. Sec. 1. The scientific sections of the Association shall be as follows: Section on Medicine; Section of Surgery, Section of Public Health; Section of Ear, Eye, Nose and Throat; and Section on Radiology. The program of the section on Medicine shall include also the subjects of materia medica, therapeutics, pediatrics, neurology, psychiatry, physiology, pathology, bacteriology and medical economics. The program of the section on Surgery shall include also the subjects of gynecology, obstetrics, urology and orthopedics.

The sections on Eye, Ear, Nose and Throat and on Radiology may meet separately and independently of the general session.

Sec. 2. The Chairmen of these sections shall be elected to serve for one year, by the sections as the last order of business.

Sec. 3. The Committee on Program shall place any paper in its proper section when in its discretion it has been reported in the wrong one. The committee shall so arrange the program that no one section shall be given precedence over another two years in succession.

Chap. V. Sec. 1. The House of Delegates shall meet annually at 8 a. m. on the first day of the annual session of the Association and there shall be no scientific meetings scheduled for that morning. It shall also meet for the conclusion of business on the third day, immediately following the adjournment of the last general meeting (scientific section) and, when necessary, shall hold

such meetings during the session as the House may order, or the President may deem necessary, but no such meeting may be held at a time that conflicts with that of a general meeting.

Sec. 7. It shall encourage post-graduate work in medical centers, as well as home study and research, and shall endeavor to have the results utilized and intelligently discussed in the component societies.

Sec. 10. In sparsely settled sections it shall have authority to organize physicians of two or more counties into societies, and these societies, when organized and chartered, shall be entitled to all the privileges and representatives provided herein for county societies until such counties may be organized separately. Delegates shall be received from such societies in the proportion of one delegate from each county in the federation.

Sec. At the time of the election of officers at each annual session the House shall select a Speaker for the following year. This officer may be chosen from the membership of the Association, irrespective of any affiliation with the House. The speaker shall familiarize himself with the rules and usages of parliamentary procedure, with the laws of the Association and with the methods, customs and business of the House. He shall preside at all meetings of the House and perform the duties usual to the position and office of chairman, except in the appointment of committees which shall be the privilege of the President. His expenses in attending the meetings shall be defrayed by the Association. In the event of his absence the President shall appoint a Speaker Pro Tempore.

Chap. VI. Sec. 1. All elections shall be by secret ballot, when more than one name is before the House, and a majority of the votes cast shall be necessary to elect.

Sec. 2. The House of Delegates on the first day of the annual session shall select a Committee on Nominations, consisting of nine delegates, one from each Councilor District. It shall be the duty of this committee to consult with the members of the Association and to hold one or more meetings at which the best interests of the Association and of the profession of the State for the ensuing year shall be carefully considered. The committee shall report the results of its deliberations to the House of Delegates in the shape of a ticket containing three names for each office to be filled except that six names shall be submitted for Vice-President (Three to be elected). No two candidates for President-Elect may be named from the same county. It shall nominate three men from each congressional district for membership on the State Board of Health in accordance with the State law governing same.

Sec. 3. Change last word to "meetings."

Sec. 4. Nothing in this chapter shall be construed to prevent additional nominations being made from the floor by members of the House of Delegates.

Chap. VII. Section. 1. The President shall have general supervision over all meetings of the various bodies of the Association, except the Council, shall appoint all committees not otherwise provided for, shall deliver an annual address at such time and place as may be arranged, and shall perform such other duties as custom and parliamentary usage may require. He shall be the real head of the profession of the State during his term of office, and, as far as practicable, shall visit, by appointment, the various sections of the State and assist the Councilors in building up the component societies and in making their work more practicable and useful.

Sec. 2. The President-Elect shall be in charge of the work of organization and shall direct and advise with the Vice-Presidents and with the Councilors in this phase of their work.

Sec. 4. The Treasurer shall give bond for the trust reposed in him in amount equal to the maximum amount in the treasury during the year preceding his election; the bond to be furnished by some reliable guaranty company selected by the Council, and the Association to pay the bonding fee. He shall, under the direction of the House of Delegates, sell or lease any estate belonging to the Association, and execute the necessary papers, and shall, in general subject to such direction, have the care and management of the fiscal affairs of the Association. He shall pay money out of the treasury only on a written order of the President, countersigned by the Secretary, except in the case of the medico-legal fund, which shall be paid out only on the written order of the Chairman of the Council, countersigned by the Secretary of the Council; he shall submit his accounts to such examinations as the House of Delegates may order, and he shall annually render an account of his doings and of the state of the funds in his hands.

Sec. 5. The Secretary, acting with the committee on program, shall prepare and issue the program for and attend all meetings of the Association and of the House of Delegates, and he shall keep minutes of their respective proceedings. He shall be custodian of all records, books and papers belonging to the Association, except such as properly belong to the Treasurer or Historian, and shall keep account of and promptly turn over to the Treasurer all funds of the Association which comes into his hands. He shall provide for the registration in their proper sections of the members and delegates at the annual session. He shall keep a card index register of all legal practitioners of the state, by

societies, noting on each his status in relation to his component society. In so far as is in his power, he shall use the printed matter, correspondence and influence of his office to aid the Councilors in the organization and improvement of the component societies, and in the extension of the power and usefulness of the Association. He shall conduct the official correspondence, notify members of meetings, officers of their election and committees of their appointment and duties. He shall act as Chairman of the Committee on Program. He shall employ such assistants as may be ordered by the Council or House of Delegates. He shall annually make a report of his doings to the house of Delegates. In order that the Secretary may be enabled to give that amount of time to his duties which will admit of his becoming proficient, it is desirable that he should receive some compensation. The amount of his salary shall be fixed by the House of Delegates.

Sec. 7. On the second line change the fourth word to read "presidents."

The former section 7 referring to the duty of the Sergeant at Arms should be omitted as there is nothing in the minutes to show that this was adopted.

Chap. VIII. Sec. 1. In the 6th line following the words "annual sessions" omit the words "of the Association" and insert "following the adjournment of the House of Delegates."

Sec. 3. Line 7 the word "meeting" to read "meetings."

Chap. IX. Sec. 1. Third line to read "a Committee on Program."

Add to the list of committees a
Committee on Public Relations.

Sec. 2. The Committee on Program shall consist of three members, of which the Secretary shall be a member and Chairman. Previous to each annual session it shall prepare and issue a program announcing the order in which papers, discussions and other business shall be presented, which shall be adhered to by the Association.

Sec. 3. After third sentence insert: In all matters of national legislation it shall follow the guidance of the American Medical Association unless definitely instructed to the contrary by the House of Delegates.

Sec. 5. The Committee on Nominations shall be selected and perform its duties in accordance with the provisions of Chapter VI, Sections 2 and 3 of these By-Laws.

Sec. 6. First sentence to read: The component society in the territory in which the annual session is held shall be the Committee on Arrangements.

Sec. 10. The Committee on Public Relations shall consist of five members; the President, the

President-Elect and three to be so elected by the House that the terms of no two of them shall expire the same year. It shall study and familiarize itself with the activities of all agencies practicing medicine in the state that are financed in whole or in part from public funds or by public subscription and report on same annually to the House. To it shall be referred without debate all matters relating to such activities as may be presented in the House. No member participating in such activities may be eligible for membership on this Committee.

Chap. X. Sec. 1. Add to second sentence the following; provided he performs his duties in compliance with Chapter 13, Section 12 of these By-Laws.

Sec. 2. Line 4, fifth word to read "its."

Chap. XII. Omit the last part of sentence beginning "unless otherwise determined * * * * bodies."

Chap. XIII. Sec. 3. Second line change "or" to "and." In fourth line change "or" to "and." Delete "county" in 6th line.

Sec. 9. Each component society shall have general direction of the affairs of the profession in its jurisdiction, and shall constantly use its influence to the moral and professional betterment of its physicians, to the end that its membership shall embrace every qualified physician in its jurisdiction.

Sec. 10. Last word should read "members."

Sec. 12. Fifth line, fourth word to read "date" instead of "data."

Chap. XV. Lines 4 and 5 change to "February 1st of that year."

ROLL OF HONOR.

"February 9, 1932.

"Dear Mr. Editor:

"It has been suggested that an interesting addition to the Roll of Honor in the History can be provided by the records of those of our members who received recognition for outstanding service in the War. It is therefore requested that those who have citations or other awards of merit communicate with the Historian."

"Yours very sincerely,

"E. F. Howard."

LINCOLN COUNTY.

The Tri-County will meet in regular quarterly session, March 8, in Wesson at the Copiah-Lincoln Junior College by invitation. Dr. A. H. Little, Oxford, among others will address the Society.

The Brookhaven King's Daughters' Hospital Staff held its regular meeting Tuesday night, February 2, at which time the regular program was carried out. Suitable resolutions on the death,

January 24, of Dr. R. E. Higdon were presented and adopted.

Dr. Higdon died in the hospital and has been on the staff since the opening of that institution.

The profession in the state will be glad to know that the health of Drs. J. T. Butler and O. N. Arrington, both of Brookhaven, is greatly improved since our last report.

The Mississippi State Board of Health recently sponsored a post graduate obstetrical course for southwest Mississippi physicians, in Brookhaven, with Tri-County Medical Society as host.

This course was ably given by Dr. James R. McCord, Professor of Obstetrics and Gynecology, Emory University, Atlanta, Georgia, and was attended by a good number of the profession from the areas surrounding. The doctors exhibited great interest in the program, coming long distances and being prompt each afternoon. They are of one accord in their praise of Dr. McCord and express their appreciation of the Board of Health's action in bringing this course to them.

The Committee of the Mississippi State Medical Association on Constitution and By-Laws met in Natchez recently and took in hand such suggestions as had been filed with it and with the many notes made by the members of the Committee themselves, and have compiled a mass of constructive criticism of our old Constitution and By-Laws, which we feel confident will appeal to the thinking members of the State Association. The membership will have ample time to acquaint themselves with the proposed changes by reading them in the Journal. The Committee will appreciate all suggestions sent them before the April meeting—send them to Dr. J. S. Ullman, Secretary, Natchez.

W. H. Frizell, County Editor.

DR. ROBERT E. HIGDON.

Dr. Robert E. Higdon was born in Copiah County, July 6, 1872, son of the late Mr. Marion Higdon. He received his education in the common schools of his native county and high schools of adjacent counties. He later taught school in Lincoln County and by this means was able to get his medical education which was in Tulane University Medical School, New Orleans. He passed Mississippi State Board of Medical Examiners, 1896, and began the practice of medicine at Fort Adams with Dr. Brandon, under the firm name of Brandon & Higdon. He was married to Miss May Sexton of Hazellhurst and to that union two children were born, the elder dying at birth. One remaining son, Robert, is now a medical student in L. S. U. Medical Department.

Dr. Higdon removed to Brookhaven, March, 1903, and enjoyed a large clientele. By his genial

disposition he made many friends that were always loyal. He was for several years associated with the late Dr. N. A. McLeod, and after the latter's death was associated with Dr. G. T. Warren until his demise.

W. H. Frizell.

MISSISSIPPI STATE SANATORIUM.

At the regular staff meeting of the Mississippi State Sanatorium on February 1, the following officers were elected:

Dr. H. M. Anderson, Chairman.

Dr. S. F. Strain, Secretary.

Program Committee: Dr. H. M. Anderson, Dr. C. E. Walker, Dr. Henry Boswell.

Case reports were given by Drs. Weimers, Anderson and Strain. Dr. C. E. Walker presented a paper on "Serofibrinous Pleurisy." Dr. Strain read one on "Tuberculosis of the Larynx."

S. F. Strain, Secretary.

WARREN COUNTY.

Dr. Nathen Lewis has been appointed C. M. T. C. examiner for the Vicksburg District.

Drs. J. S. Ewing, S. Myers and A. Street attended the Mid-South Assembly in Memphis.

A committee of Mississippi State Hospital Association on Charity Hospitals met in Vicksburg on February 9, and after a careful study submitted some very excellent recommendations for changes in the laws governing Charity Hospitals of the State. The members of the Committee in attendance were Dr. B. B. Martin, Vicksburg, Chairman; Dr. J. A. Rayburn, Natchez; Dr. R. H. Cranford, Laurel; Dr. E. E. Benoist, Natchez, Secretary.

E. H. Jones, County Editor.

EAST MISSISSIPPI MEDICAL SOCIETY.

A regular meeting of the East Mississippi Medical Society was held in the Lamar Hotel, Meridian, February 18, at 3 p. m. The program included the following:

(1) Some Recent Advances in Diagnosis. (Lantern slides).—Dr. O. W. Bethea, New Orleans.

Discussion by Drs. H. S. Gully and M. J. Lowry.

(2) Appendicitis in Children.—Dr. W. R. Hand, Philadelphia.

Discussion by Drs. F. G. Riley and G. L. Arrington.

(3) Neglected Lesions of the Uterine Cervix.—Dr. Shields Abernathy, Memphis.

Discussions by Drs. C. R. Stingily.

The doctors of Lauderdale County returning home February 13 from their four months' post-graduate course at Tulane, given by the Commonwealth Fund, were as follows: Drs. E. B. Key,

C. J. Lewis, R. J. Wilson, R. M. Leigh, and T. L. Bennett.

T. L. Bennett, Secretary.

HOUSTON HOSPITAL.

The monthly staff meeting of the Houston Hospital was held January 28, at the Hospital.

Notwithstanding the heavy rainfall and inclement weather, the doctors of the community attended this meeting.

Dr. E. G. Abernethy of Algoma gave a very interesting paper on "Influenza with Some Complications and Treatment" which was discussed in turn by the doctors present.

W. C. Walker, Secretary.

GRENADA COUNTY.

Nothing of special interest in our county this month. All of our members are well and at their posts. Health conditions best ever known at this season of the year.

The Winona District Medical Society met in Kosciusko on January 13; about thirty-five members present. A number of visitors added to our pleasure. A good program with liberal discussion of papers presented gave us a profitable meeting.

Dr. W. H. Curry, Europra, was elected President and Dr. E. W. Holmes, Winona, Secretary for the next year. Both good and diligent men. Dr. J. K. Avent, F. S. Hill, and T. J. Brown represented Grenada County at the meeting.

T. J. Brown, County Editor.

DR. S. W. JOHNSTON,

having become a grandfather, announces that in future he will insist upon being treated with the respect and consideration due his dignified status.

NATIONAL HOSPITAL DAY.

National Hospital Day has been set for May 12, 1932. W. Hamilton Crawford, Hattiesburg, has been elected as Chairman for the state of Mississippi, and he has appointed as his Committee Dr. J. A. Rayburn, Natchez; G. D. Stanley, Greenville; Katherine Whitespinner, Biloxi; and Dr. L. S. Lippincott, Vicksburg.

DEATHS OF MISSISSIPPI DOCTORS.

Robert E. Higdon, Brookhaven; January 24, 1932, at Brookhaven. Born Copiah County, July 6, 1872.

D. P. Butler, McCall Creek; result of injuries received in automobile accident; January 13, 1932, at Jackson, Mississippi. Born Amite County, December 29, 1870.

E. C. Lucas, Ebenezer; January 9, 1932, at Ebenezer; born Macon, February 11, 1861.

James M. Shamburger, Toomsuba; sudden death; January 1, 1932, born Toomsuba, August 31, 1855.

Thomas A. Heath, Shiloh; January 18, 1932; at Shiloh; born Copiah County, July 14, 1854.

REPORT OF THE STATE BOARD OF HEALTH.

Acknowledgement is made to Dr. Felix J. Underwood, State Health Officer for a copy of the Twenty-Seventh Biennial Report of the State Board of Health of the State of Mississippi, covering the period July 1, 1929 to June 30, 1931. The book which is attractive and well arranged gives the members of the State Board of Health; Official Staff of State Board of Health; Directors of Full-time County Health Department; Letters of Transmittal to the Governor; Report of Administrative Officers; Report of Bureau of Vital Statistics; Report of State Hygienic Laboratory; Report of Bureau of Sanitary Engineering; Report of Bureau of County Health Work; Report of Full-time County Health Departments; Report of Bureau of Communicable Diseases; and Report of Bureau of Child Hygiene and Public Health Nursing. It well shows the large amount of work that is being done in Mississippi by and under the direction of the State Board of Health.

WOMEN'S AUXILIARY.

The Women's Auxiliary of the Harrison-Stone-Hancock Counties Medical Society combined its February meeting with a farewell party complimenting Mrs. H. H. Botts, who is leaving shortly for Washington, where her husband has been transferred. The meeting was in the Long Beach home of Mrs. Daniel J. Williams, decorated for the occasion with *camellia japonica*s and azaleas from the Williams' garden.

At the business session, resignation of Mrs. Botts as treasurer was received and Mrs. Elmer Gray elected to fill the vacancy. The principle discussion dealt with the plans for the entertainment of the delegates to the American Medical Association meeting in New Orleans in May, who plan to visit the Coast, Friday, May 13. The Coastwide committee of women co-operating with the committee from the Medical Society, includes Mrs. D. J. Williams, Chairman, Mrs. George Melvin, president of the local auxiliary; Mrs. E. C. Parker, Dr. Emma Gay, Mrs. B. Z. Welch and Mrs. D. G. Rafferty. Among the entertainments for this visit will be a tea at the Veterans' Hospital in honor of the outgoing and incoming presidents of the Women's Auxiliary of the American Medical Association, who are to be houseguests of Mrs. Williams following the New Orleans convention.

The party followed the business session. The auxiliary presented to Mrs. Botts a farewell gift. Mrs. Williams making the presentation and giving her a corsage of camellias and azaleas. Mrs. Melvin poured coffee at the tea table which was laid with white cloth, silver service and center piece of chosen flowers. The hostesses for the party were Mrs. D. J. Williams, Mrs. W. A. Dearman, Dr. Emma Gay and Mrs. Elmer Gay.

Mrs. D. J. Williams, Gulfport, has been appointed chairman of the "Jane Todd Crawford Memorial Committee" of the Women's Auxiliary of the Southern Medical Association. Some excellent programs for local Auxiliaries are available

pertaining to this splendid woman's heroic contribution to surgery and Mrs. Williams will be glad to send same to any one desiring them.

Dr. and Mrs. H. H. Botts left by motor February 15, for Washington, D. C., to which place Dr. Botts was transferred, having been Clinical Director at the Veterans' Hospital at Gulfport for the past two or three years. This removal is a distinct promotion for the doctor and his host of friends on the coast congratulate him, though it was with reluctance that they gave up both him and his charming wife. They will be greatly missed in a professional and social way.

Mrs. D. J. Williams.

BOOK REVIEWS

Gonorrhea in the Male and Female: By P. S. Pelouze, M. D. 2d ed. rev. Philadelphia, W. B. Saunders Co. 1931. pp. 428. Price, \$5.50.

The section on the infection in the female is an addition to the first edition of "Gonorrhea in the Male."

The first section has very little that was not included in this edition. Both sections are very thorough in their descriptions of the anatomy of the genitalia. Great stress is made on the gentleness and the insistence on abstinence from alcoholics and sexual relations during treatment, as well as the disuse of large doses of vaccine.

MONROE WOLF, M. D.

The Practice of Contraception: Edited by Margaret Sanger and H. M. Stone, M. D. Baltimore, Williams & Wilkins Co. 1931. pp. 316. Price, \$4.00.

This book is a sane scientific discussion of birth control as practiced in the various nations taking part in the international convention. The percentages of success and failure with the various methods and the reasons therefor are given. One or two unintentional touches of humor relieve the monotony of repetition of case histories.

Advanced methods of performing legal abortions are but lightly touched upon as the general attitude is one of disfavor toward discussing this subject. In fact, one of the arguments against the use of the silver ring of Graefenburg was that it was merely the equivalent to an early abortion.

The general trend of the convention was toward educating the physician in giving his patients information about birth control instead of forcing them to resort to quacks and other uneducated persons with the resultant dangers.

A short history of the practice of birth control shows that it has been practiced as long as our so-called civilization has existed and that at least one of the methods used many years ago

was mechanically and chemically the fore-runner of the cervical cap used today.

Adequate methods of sterilization are given and the indications although all of the members of the Zurich convention expressed themselves in favor of more conservative methods except where absolutely necessary. Sterilization by means of roentgen rays seemed to be little approved.

Biological methods are still only in the experimental stage. Quite a few feel that in the future this method will be greatly improved and more widely used.

E. STUTEVILLE, M. D.

The Human Voice: Its Care and Development: By Leon Felderman, M. D. New York, Henry Holt & Company. 1931. pp. 301. Price, \$2.50.

Dr. Felderman has attempted in this little book to trace the development of speech in the human from the sound mechanism in the lower forms of animals. The subject matter of the book is principally concerned with the speech mechanism of the human and its relation to the production of vocal music. The complex act of singing or speaking, necessitates the perfect coordination of the nervous and muscular elements of the vocal mechanism. The necessity for the absence of pathology in the respiratory tract of the singer is stressed.

The book has been written for the edification of the lay reader and as such should prove helpful to singers, public speakers and teachers.

H. KEARNEY, M. D.

Some Aspects of the Cancer Problem: By W. Blair Bell, B. S., M. D. New York, Wm. Wood. 1930. pp. 543. Price, \$20.00.

This book by Dr. W. Blair Bell is indeed very interesting. It contains a very thorough compilation of the work carried out by the different investigators and I am sure that few of us realize

the enormous amount of research that is being done along these lines.

This is the only book which I have read that covers the cancer problem from all angles. His chapters describing the work done with lead, both experimentally and with the human subject, are well worth reading.

In covering the chemical phase of this work, Dr. Bell makes clear a subject which is usually over the heads of most of us.

ANDREW V. FRIEDRICHS, M. D.

Surgical Pathology of the Skin, Muscles, Tendons, Blood and Lymph Vessels: By Arthur E. Hertzler, M. D. Philadelphia, J. B. Lippincott Company, 1931. pp. 301. Price, \$5.00.

This is a second of a series of surgical pathology monographs by Dr. Hertzler. In writing this book the author has suffered with the same difficulty that many suffer in attempting to write on surgical pathology. They lack a lucid idea of the scope of the subject and in so doing are not sufficiently inclusive in their subject matter or bibliographies. This is due to the fact that to be a surgeon and at the same time be a pathologist is an accomplishment of few. Such expressions as "The above is correct for I copied it out of a book" apparently are considered as witticisms by the author, but certainly have no place in a book on surgical pathology and can only detract from the excellent material presented. The author suggests tumor classification some of which when ironed out may be accepted in due time. The illustrations are excellent and demonstrate well the points presented. There is much very valuable information in this book with which every surgeon should be acquainted. The illustrations and original suggestions overshadow discrepancies which might be noted and make the book a valuable one.

J. W. WILLIAMS, M. D.

Accidental Injuries: The Medico-Legal Aspects of Workmen's Compensation and Public Liability: By Henry H. Kessler, A. B., M. D., F. A. C. S., F. A. P. H. A. Philadelphia, Lea & Febiger. pp. 718. Price, \$10.00.

This very important subject, which is warranting the medical as well as the legal profession more interest and demanding a great deal of study from all angles, is beautifully covered by this one volume text of 718 pages well illustrated with 157 engravings.

The treatise is a collaboration based on the personal experience of the author so well fitted by the many appointments he has in various rehabilitation clinics, compensation bureaus, orthopedic hospitals, aside from serving on many bodies for

the study of conditions completely covered in this book, combined with the extensive contact with foreign experts interested in this special field of medicine and surgery and industry.

It recognizes the importance of calling attention to the medico-legal side of accidental injuries which is not discussed as freely and thoroughly as they should in our American literature, which opens an avenue for abuse and controversy.

In going over the twenty chapters I am convinced that the author's attention is centered on a better understanding for physicians and surgeons, with a view of encouraging authorities in each branch to come forward with their knowledge for the protection of the unfortunate injured individuals as well as industry and their insurance carriers, etc. There is quite a difference in the understanding of the layman and the physician in arriving at percentage impairment of members, or of an individual.

The history or the evolution of compensation is interestingly briefly discussed in the first chapter and in the following one, the Medical Aspects of Workmen's Compensation Laws, tends to familiarize the physician with conditions that will assist him in a broader sense in more intelligently and accurately executing forms and reports, very essential; estimations of disabilities, whether temporary, total and to what degree; and the very important and influencing social status of the injured individual, determining the just fee for all concerned, being in ignorance of the purpose of compensation and thereby defeating its great object for which it is intended—namely, for "the protection of the injured."

In another chapter, the association of injury and disease is well considered, though briefly, and brings out the contention, "just as the layman or workman has a tendency to ascribe a disease to a possible accident at work, so is the attending physician inclined to follow the same line of reasoning, using the sequence of events as the basis for his proof, rather than an exact study of the cause of the disease and the injury alleged to be responsible for it." It is the reviewer's belief that serious consideration should be given along the lines of the aforesaid quotation by the medical profession, whether they are or whether they are not in any way connected with industry. It likewise covers the reflection of disease on disability and the importance of early recognition of constitutional disabilities or infirmities which require correction for the more rapid recovery and returning of the injured to his former employment.

It contains complete compilation of compensation payable for specific injuries in many States, aside from other tables of computation of dis-

abilities, etc.

Under the chapter of Pathology of Trauma, biomechanics are discussed, including all phases, especially in its physical relation and effect on different tissues, sequelae, etc. All traumatic injuries are scientifically discussed abundantly and well illustrated, disabilities accurately estimated and helpful to men interested in industrial medicine and surgery, students, claim adjusters, lawyers, judges, bureau heads, consultants, etc., for the advancement and promotion of justice and humane understanding plus interpretation of the innermost thoughts of the injured and his environmental influences.

Of striking interest are the great number of valuable references following each chapter.

Several chapters are anatomically allotted, freely discussed from all angles, though concise, and written in an easily digested and most simple style unlike many other texts written on injuries—industrial or accidental.

The traumatic neurosis chapter is likewise very intelligently drafted in plain language and worthy of perusal by any one interested in this branch of medicine and surgery.

In concluding, I would like to call attention to the final chapter dedicated to physical and vocational rehabilitation, morale, treatment, training, etc.

The text will no doubt gain a popularity well deserved and be placed in the library of each one in this particular field.

JOSEPH C. MENENDEZ, M. D.

Living the Liver Diet: By Elmer A. Miner, M. D.
St. Louis, C. V. Mosby Co. 1931. pp. 106.
Price, \$1.50.

This little booklet is of chief interest to patients and dietitians. As far as the physician is concerned it is of but moderate interest as it contains nothing new or important. Its main contribution is a considerable number of recipes for cooking liver and making it more palatable and less monotonous to the suffering. The author is himself a pernicious anemia patient and his optimism and reactions to the liver diet are interesting and should be most encouraging to the patient suffering with the disease. Placing a book of this character in the hands of the patient should greatly aid in his intelligent co-operation with the physician.

RANDOLPH LYONS, M. D.

Diseases of the Gums and Oral Mucous Membrane:
By Sir Kenneth Goadby, K. B. E. 4th ed.
London, Oxford Univ. Press. 1931. pp. 496.
Price, \$13.00.

The profession should welcome anything from the pen of that indefatigable investigator, Kenneth Goadby, and his new edition of *Diseases of the Gum and Oral Mucous Membrane*, with its

beautiful illustrations, is worthy of any progressive dentist's consideration. Of course, it is out of the question to cover all the subject matter of a 496 page volume in a review so we will attempt to cover only some interesting high spots.

While the book is not supposed to treat of the pathology of the hard tissues, the dentist in him just would pop out and he again reviews the field of tooth decay. And let us make haste to say that he still keeps his feet on the floor and is not carried away from the knowledge gained by fifty years of hard study, by the half-baked and quite unproven theories on the prevention and cure of dental caries by diet alone. He, like all well-balanced dentists, believe that coming generations can have better teeth as a result of intelligent feeding but he does not regard diet as a panacea.

Diagnosis is a matter of prime importance and when it comes to bacteriologic and microscopic diagnosis the author is thoroughly at home, but when it comes to a clinical diagnosis it seems that he leaves too much unsaid. For instance, he does not state that intense cold is the one positive test we have for tooth vitality nor could one use it with any exactness as the author suggests by squirting cold water from a syringe; it covers too large a field. Small pieces of ice held in suitable tweezers and applied directly to the neck of a single tooth will in all but very exceptional cases elicit a painful response, if the tooth be alive.

The application of electricity for determining tooth vitality is both troublesome, expensive and inconclusive, many teeth responding positive that are definitely pulpless. This is partly due to the fear most people have of electric shock and we get unintentional distortion of the truth from them. Ice is cheaper, quicker, more positive and people do not shy from it and tell you the wrong thing. Then the author has a much more difficult method of applying heat to a tooth than that of just heating a large ball of base plate gutta percha until it begins to sputter when it is applied to a single tooth at a time. It will cover a large area of that tooth and carry all the heat necessary to get a response, but a response to heat does not indicate vitality.

When it comes to percussion it is well to use an orange wood stick and a mallet instead of a steel instrument. The stick when struck with a mallet delivers a softened blow and the tooth should be struck from several directions, many teeth responding from the buccal or lingual and not at all from the occlusal.

As regards transillumination, this only shows some pulpless teeth, not all by any means, but when one does show up with a dark shadow you may be sure it is pulpless. But the degree of opacity does not indicate the intensity of the pathology. Teeth showing up intensely dark may have much less potent pathology than one scarcely showing a shadow.

The author gives just praise to the roentgen ray as a means of diagnosis but he could do much to advance it as science by insisting on a standardized technic in place of the present rather hit and miss process. Also a full mouth set of pictures is an invaluable asset in nearly all cases where a comprehensive diagnosis is necessary.

It also seems to this reviewer that the chapter covering Vincent's infection in the mouth could be revised to advantage. American dental literature is replete with carefully and minutely-described treatments that are outstanding in their success in eliminating this widespread and dangerous malady.

The average dentist wants something very definite in the way of information for the treatment of Vincent's infection and cannot use the vague information that "Chlorate of potash should be used in large doses." What amount constitutes a large dose and is it used as a mouth wash or taken internally?

These criticisms are aimed at only a very small portion of the book and should not detract from the value of the immense fund of truly useful scientific matter it contains and it should find a place in the library of every dentist and physician.

CHARLES SHEPARD TULLER, D.D. S.

General Surgery: Ed. by Evarts A. Graham, A. B., M. D. Chicago, The Year Book Publishers. 1932. pp. 762, 64 pl. Price, \$3.00.

This already well accepted yearly surgical volume has again been brought up to date. The 1931 and recent world literature is masterfully abstracted and organized into a handy book, which rivals any larger one for completeness. The fact that it offers a quick means of reviewing the best literature on any surgical subject makes it a volume which should be indispensable for students, teachers, and practitioners of medicine and surgery.

AMOS M. GRAVES, M. D.

A Doctor of the 1870's and 80's: By William Allen Pusey. Springfield, Ill., Charles C. Thomas. 1932. pp. 153. Price, \$3.00.

A fascinating account of the life of a country doctor in the late 70's and the 80's. Dr. Pusey has recounted in the life of his father the everyday routine of a country doctor in a relatively prosperous community. He shows the difficulties that such a doctor necessarily must encounter and some of the struggles he has to overcome, but throughout the book the general theme is that of a joy of living, the pleasure in accomplishing good and the satisfaction in work well done. The country doctor lives a life that is broadening and that is educating him continuously. It is not a monotonous, circumscribed and isolated provincialism which surrounds him. All this Dr. Pusey brings out in presenting the life of a truly splen-

did character, his father.

J. H. MUSSER, M. D.

Diabetes: Its Control by the Individual and the State. By Elliot P. Joslin, M. D., Cambridge, Harvard University Press. 1931. pp. 70. (Harvard health talks.) Price, \$1.00.

This little book, written in pleasing style, is of the greatest interest not only to doctors, but to the laity. Anyone who is himself a diabetic or who has relatives or friends with diabetes may find many cheering messages in its pages. Written by a master, it should find a wide circulation.

I. I. LEMANN, M. D.

Conquering Arthritis: By H. M. Margolis, M. D. New York, The Macmillan Co. 1931. pp. 192.

This is an interesting book evidently prepared for the laity. The first chapter is on the history of arthritic disease. A chapter on types of chronic arthritis is given.

In his chapter on the treatment of chronic arthritis the author speaks about the patients' dread and fear of the spread of this condition; this symptom is very often found.

This book cannot be recommended for the doctor interested in the study of arthritis.

EDWARD S. HATCH, M. D.

PUBLICATION RECEIVED.

Williams and Wilkins Co., Baltimore: The insanity Plea, by Edward Huntington Williams, M. D. International Studies, by Sir Arthur News-holme, K. C. B., M. D., F. R. C. P. Control of Conception, by Robt. L. Dickinson and Louise Stevens Bryant.

F. A. Davis Company, Philadelphia: Varicose Veins, by H. O. McPheeters, M. D., F. A. C. S. Textbook of Gynecology for Nurses, by Philip J. Reel, M. D., F. A. C. S. Notes of Children's Nursing, by Marguerite C. Erxleben, R. N., B. S.

J. B. Lippincott Company, Philadelphia: Surgical Errors and Safeguards, by Arthur Dean Bevan, M. D. Surgical Pathology of the Female Generative Organs, by Arthur E. Hertzler, M. D.

The Macmillan Company, New York: The History of Medicine, by Bernard Dawson, M. D., F. R. C. S. The Principal Nervous Pathways, by Andrew Theodore Rasmussen, Ph. D.

The Century Company, New York: Body Mechanics: Education and Practice, Report of the Subcommittee on Orthopedics and Body Mechanics, Robert B. Osgood, M. D., Chairman. Physiology and Psychiatry in Pediatrics; The Problem, Report of the Subcommittee on Physiology and Psychiatry, Bronson Crothers, M. D., Chairman.

Albert and Charles Boni, New York: The Story of Medicine, by Victor Robinson, M. D.

Charles C. Thomas, Springfield: Surgery of the Chest, by George F. Straub, M. D., F. A. C. S.

New Orleans Medical

and

Surgical Journal

Vol. 84

APRIL, 1932

No. 10

TOXOID IMMUNIZATION CAMPAIGN.*

W. H. ROBIN, M. D.,†

NEW ORLEANS.

I am here tonight, as the Health Officer of this Parish, to appeal to the membership of the Orleans Parish Medical Society for their co-operation in developing the administration of toxoid in our local diphtheria prophylaxis work.

The majority of us are aware of the fact that active immunization against diphtheria has developed during the past fifteen years, especially in the United States, into one of the most important specific measures for the prevention of the disease. Auburn, New York, Grand Rapids, Michigan and New York City staged campaigns on diphtheria immunization and were rewarded by tremendous reductions in their diphtheria death rates.

The Orleans Parish Health Department has completely discontinued the use of toxin-antitoxin. Toxin-antitoxin was of material assistance to us, and we used it until scientific workers presented us with something that has proved to be safer and more efficient. Just as soon as the superiority of toxoid had been definitely demonstrated, we discarded toxin-antitoxin in favor of the new product.

I believe that quite a few of us were glad to have been able to discard toxin-antitoxin because of the dangers that attended its ad-

ministration. Toxin-antitoxin mixture is made from mature toxin by adding sufficient diphtheria antitoxin to decrease its toxicity so that it may be safely injected. A potential danger in connection with that product was the fact that the mixture would, if exposed to freezing temperatures, dissociate into its original components and we then had a highly toxic product, the administration of which resulted in quite a few fatalities.

These conditions have been removed in the new product, toxoid. The new product was first applied to the immunization of humans by Ramon, of the Pasteur Institute, in 1923. It is prepared by adding commercial formalin to toxin, and subjecting the mixture to a temperature of 39 to 40 degrees C., until all toxicity is lost, which usually takes place in from three to six weeks.

We have been administering toxoid in two doses of 1 c. c., each. Such doses are administered at intervals of twenty-one days. Practically all YOUNG children who have been immunized gave no local or general reaction, the trauma of the injection being all that could be seen. These are the children most susceptible to diphtheria, and it is in this group that such prophylactic measures find their greatest usefulness.

The Journal of the American Public Health Association states that the use of toxoid has spread over the entire Dominion of Canada, and that, during the past six years, sufficient toxoid for the vaccination of over one million persons has been distributed in the Dominion.

*Read before the Orleans Parish Medical Society, February 22, 1932.

†Superintendent of Public Health, New Orleans, La.

It is not my intention to consume a lot of time in dwelling upon toxoid, because we, as physicians, are familiar with the product.

I want to use the time allotted to me in asking you to encourage the use of toxoid in your individual practices; to help us put over this campaign of diphtheria prophylaxis by speaking favorably when consulted by your patients, and by personally administering it whenever possible.

NEW ORLEANS, LA.

DEATHS AND YEARLY DEATH RATES FROM DIPHTHERIA AND CROUP, 1879-1931.

Year	Deaths	Rate	Year	Deaths	Rate	Year	Deaths	Rate
1879	107	.500	1896	53	.530	1913	112	.300
1880	81	.375	1897	45	.163	1914	112	.300
1881	94	.429	1898	15	.054	1915	111	.294
1882	73	.328	1899	19	.063	1916	37	.098
1883	87	.388	1900	36	.120	1917	32	.083
1884	155	.682	1901	41	.134	1918	18	.046
1885	230	.982	1902	44	.141	1919	16	.040
1886	145	.609	1903	35	.110	1920	22	.055
1887	226	.903	1904	45	.138	1921	13	.032
1888	355	1.431	1905	42	.126	1922	37	.091
1889	171	.673	1906	46	.135	1923	32	.078
1890	136	.535	1907	37	.105	1924	23	.055
1891	109	.429	1908	48	.132	1925	28	.067
1892	116	.456	1909	25	.067	1926	32	.073
1893	126	.496	1910	38	.102	1927	64	.014
1894	158	.574	1911	25	.067	1928	36	.069
1895	99	.360	1912	58	.155	1929	26	.056
						1930	39	.083
						1931	18	.037

The highest rate on record was in the year 1888 when the death rate was 1.431 per 1,000 population.

The year 1888 death rate applied to the 1931 population would mean 678 deaths, but the deaths for the year 1931 were only 18.

The Health Department has no desire or intention to practice therapeutic medicine. Our field is preventive medicine, but we do not want to monopolize even that field, because we desire to have the medical profession work with us in the prevention of the transmissible diseases. We want the practicing physicians to get the benefit of this campaign. We would like to have them administer every dose that is given in the Parish of Orleans; but we, of course, know that to be an impossibility. Every large city

has its quota of destitute individuals. It is the duty of the municipality to care for such unfortunates. We will take care of such persons in our Health Department Clinic, but our efforts will be directed toward advising individuals to have this work done by their personal physicians.

One of the most vital factors in this campaign of diphtheria prophylaxis is the child of pre-school age. It is difficult for a Health Department to reach such children. It is a very simple matter for us to handle school children because we have a concentration of children in each school and can solicit the aid of parents, and teachers, but the pre-school child is a problem that we will be unable to handle successfully without the aid of the medical profession and I wish to stress that fact in my appeal to you tonight.

As a part of our work in the prevention of diphtheria, we will check our official birth records and six months after the date of each birth, we shall mail to the mother a letter calling attention to the fact that her child is now six months of age and that the time has arrived for her to consult her family physician in order to have her baby vaccinated with toxoid, as a prophylactic against diphtheria. This follow-up system of every child born in the Parish of Orleans should result in sending many children to physicians for the administration of toxoid.

In administering toxoid in the local schools, we always have our technical representatives visit the schools in advance. The Parents Club is summoned to meet on a definite date; our representatives explain the benefits of toxoid; explain that the function of the department is to administer toxoid to those who are unable to pay for it, and urge all others to visit their family physicians to have this work done by him. A date is then set for the inoculations, usually about ten or fourteen days later.

The administration of toxoid in schools was inaugurated just a few weeks ago, but we have accomplished the following:

Lafayette School	1,205
Howard No. 2	206
Jesuits High School	600
St. Rita's School	130
Lafon Boys' Home	80
House of Good Shepherd	123

We have arranged for appointments at several other schools and are delighted with the fact that we have encountered practically no opposition in connection with this work.

Ever since I returned to the Superintendency of Public Health, in 1925, I have attempted to co-operate whole-heartedly with this Medical Society. I have always come to you with my medical problems and have always attempted to have all misunderstandings between my department and local physicians cleared up at the meetings of this Society. I always rigidly adhere to the ethics of our profession; insist that my subordinates do so; and ask you to act in like manner toward me and my department.

I am convinced that an extensive campaign of diphtheria prophylaxis will save the lives of many individuals, and if followed as outlined by our department will also benefit the members of our profession.

EDITORIAL NOTE: This paper of Dr. Robin and the following two papers dealing with diphtheria immunization are published ahead of those papers which in chronological order should precede them. The Journal Committee felt, inasmuch as the Orleans Parish Medical Society had requested the prompt publication of these articles because of the campaign to educate the public and to advocate diphtheria immunization, that this was a public health measure of primary importance and did not permit of delay. These papers were read at a meeting of the Orleans Parish Medical Society and were thoroughly discussed. Valuable discussions have been omitted necessarily because of the amount of space they would require and which would preclude the possibility of publishing articles that antedated these papers by many months. The Journal Committee regrets the necessity of making these omissions. The discussions at this symposium of diphtheria immunization was participated in by the following gentlemen: Doctors W. W. Butterworth; Frank R. Gomila; Charles J. Bloom; E. A. Bertucci; Ludo Von Meysenbug; Ruth Aleman; A. E. Fossier; Allan Eustis; W. H. Perkins; C. L. Chassaignac; L. R. DeBuys; and closed by the three essayists.

THE NEWER CONCEPTION OF DIPHTHERIA IMMUNIZATION*

ROBERT A. STRONG, M. D.†

NEW ORLEANS.

Every year in the latter part of September we all witness the mobilization of the

school children. The occasion brings with it a certain thrill. The children know it, and the young parents know it. We can see the children in little groups talking long and loud, and their voices seem to have a higher pitch than usual.

As happy as these occasions are outwardly, they always arouse a dark and sinister thought. This thought is that a certain number of these children will die from diphtheria as a direct result of this annual gathering. This is disquieting—but true.

This thought raises another question, and that is, are we giving these children the full benefit of protection against this disease by the utilization of the means at our disposal at the present time? A comparison of the morbidity and mortality reports of diphtheria in some cities with others in which active immunization against diphtheria has been extensively carried out, indicates that we are not.

Nearly a half century has elapsed since Behring discovered the serum which stands today as the most perfect specific among our serotherapeutic agents. There are many who probably recall the days shortly after this wonderful discovery, when newspapers were raising funds for the manufacture of this antitoxin. Prior to this time, the treatment of diphtheria was no more effective than the treatment of a generalized sarcomatosis is today. While it is true that Behring's name will endure for all time as the discoverer of antidiphtheric serum, it is not widely appreciated that he is also credited with being the first to employ a mixture of toxin and antitoxin for the purpose of producing an active immunity against diphtheria. His preparation was the undiluted toxic broth, with its toxin nearly neutralized by antitoxin. He never gave a clear explanation of how he prepared or standardized it, and the breaking out of the war delayed further study and the use of toxin-antitoxin in Europe.

Park and the late Zingher were the first to appreciate the value of active immunization, and by the Schick test they were able

*Read before the Orleans Parish Medical Society, February 22, 1932.

†From the Department of Pediatrics, Tulane University of Louisiana, School of Medicine.

to determine the susceptibility of children, and by a retest to note the changes in the human response to injections of toxin-antitoxin. They demonstrated that immunity developed in about 85 per cent of those receiving three injections of their 3 L+ preparation at intervals of one week, and by 1917 they realized that it lasted in the majority of cases for a least several years. They also tried intervals of two weeks, but the results were only moderately better.

Schroder, working under Park at the Department of Health of New York City, retested a sufficient number of immunized children over a long period and found in 1925 that the period of immunity extended over 10 years for at least 80 per cent of them. These were all New York City children, and of course the long duration of immunization is admitted to be at least partially attributable to the added immunizing effect of repeated infection from carriers, to which urban children are exposed.

1918 is the year given by Park and his associates when they began a serious attempt to immunize the whole child population of the city of New York. Their earlier work was confined chiefly to children of school age, because parents were not willing to have the injections given to babies or very young children. Severe systemic and local reactions about this time prompted Park and his associates to dilute the toxin before adding antitoxin, and they found that when as little as 0.1 L+ dose of toxin was given in the injections, the immunizing effect was as great as when 3 to 6 L+ doses were used. Smaller amounts of toxin were less immunizing. They soon standardized their preparation, on finding that the maximum effect was possible when the toxicity in the human dose killed a 250 gram guinea pig in about four weeks. This new preparation gave much less local reaction in children of school age, and has since become recognized as being the standard toxin-antitoxin preparation.

The latest report¹ from New York City is that during the past fifteen years, more

than 500,000 school children have been given toxin-antitoxin, and during the past two and a half years, owing to an intensive drive to stamp out diphtheria inaugurated by the Commissioner of Health, Dr. Wynne, more than 250,000 infants and pre-school children have received it. Deaths from diphtheria in New York City during 1930 were only 198 against 416 for 1929, and 800 for 1928. The figures for the first eight months of 1931 are even better than those of 1930. During this time, the population has considerably increased. All this immunization work was performed without an accident.

One of the outstanding things that has been emphasized in every one of the many communications from Park and his associates, is the fact that their work has not been marred by any serious accident. In contrast to this, more widespread active immunization has been greatly impeded by reactions which have sometimes been severe in various parts of the world other than New York City. The reactions have been attributed to various things. First in importance, perhaps, has been the effect produced by sensitiveness to the horse serum contained in the antitoxin portion of toxin-antitoxin, consequently no small amount of effort has been expended in eliminating this factor as far as possible. This has been done by substituting antitoxin from the goat, and the possibility of anaphylactic reactions from later injections of therapeutic doses of antiserum from the horse has been greatly minimized.

In addition several accidents have been deterrents to the advance of active immunization against diphtheria. Unfortunately, skepticism is aroused by such occurrences, not only in the public mind, but among many physicians. For the most part, they were caused by human error and were not chargeable to the materials used, excepting in one instance. Forty-two students in two colleges near a large New England city had severe local and constitutional symptoms as a result of the administration of toxin-anti-

toxin which had been exposed to very low temperature. Prompt and expert investigation by foremost authorities revealed the fact that prolonged exposure to temperatures below freezing caused the dissociation of the toxin from the combination. Fortunately no deaths occurred and this episode revealed a fact that was hitherto not known. It will probably never happen again if the precaution is taken not to store toxin-antitoxin in temperatures below freezing, and to protect it in transit during very cold weather.

Unfortunate as these accidents may be, they were by no means as great as those which occurred during the developmental period of diphtheria antitoxin, yet there is no one at the present time who would refrain from administering this undisputed specific serum. It is true, of course, that modern antidiphtheritic serum has been concentrated and purified so that reactions have been reduced to a minimum. This was not possible, however, until the need for such improvement was made apparent by serious effects, and even deaths. Should we not then feel the same way towards the agents used in active immunization against the disease for the reason that there can be no doubt that progress has already resulted from these unpleasant episodes. Have not similar accidents occurred in the progress of anesthesia and many other things which no one would be willing to abandon at the present time.

It is true, however, that in contrast to the experiences in New York City, there have been many reports of reactions that were at times terrifying to the physician. Naturally, therefore, efforts have been made to overcome such reactions and to detoxify the substances used as much as possible.

The most conspicuous effort in this direction came when it was found that formalinized toxin could be used to advantage in human immunization against diphtheria. Salkowski in 1898², and Lowenstein in 1924³, described the action of formalin on soluble toxins. Glenny and Sudmersen

in 1921⁴, and Glenny, Allen and Hopkins in 1923⁵, proposed that formalinized toxins be used. Independently of each other in 1923, Glenny and Hopkins⁶ in London, Ramon in Paris⁷, and Park and associates in New York⁸, began to test the value of toxoid preparations. In 1922, Ramon, at the Pasteur Institute in France, had found that when antidiphtheritic serum was added in varying proportions to diphtheria toxin, a gradually increasing opalescence appeared, and after a few hours at ordinary temperature a definite flocculation became evident. This flocculation invariably appeared first in the tube in which toxin and antitoxin most nearly neutralized each other. Ramon considered this a specific reaction depending on the interaction of an antigen and its antibody. He further found that a toxin which has lost some of its toxicity by exposure at room temperature, or by other means, might retain its flocculating properties unimpaired.

While immunizing a series of horses for the production of antidiphtheritic serum, Ramon realized that the antigenic value of a toxin did not depend upon its toxicity, but was in close relation to its power of flocculation. This was the early development of what Ramon called *anatoxine*, but which has since been referred to as *toxoid* by English speaking nations to avoid confusion with antitoxin.

Since Ramon's first announcement, the literature has been voluminous in discussing toxoid, and there is every reason to believe from the various series of cases in which it has been used, that it has partially, if not entirely overcome some of the objectionable effects of toxin-antitoxin, and the trend seems to be towards toxoid as the substance of choice in the production of active immunization against diphtheria.

Experience has shown that toxoid may cause local and general reactions in older children. So far these reactions are allergic in nature, and the opinion seems to be general that they are only unpleasant and never dangerous. On the other hand, all young

children very rarely give local or general reactions. This fact is most important because it is the pre-school child that is most susceptible to diphtheria, and it is in this group that any prophylactic measure finds its greatest usefulness. Mortality statistics seem to indicate that it is conservative to state that the immunity of one child for the first five years of life is equal in its effect upon the diphtheria death rate to the immunization of three school children.

Older children and adults may be immunized with toxoid, but it is recommended quite generally that a test for sensitiveness to diphtheria proteins be made before the immunizing injections are begun. This test may be carried out either alone, or as a control for the Schick test. A small vial of diluted toxoid 1 to 20 is furnished by the manufacturers, and 0.1 c.c. is inoculated intracutaneously, as for the Schick reaction. A local area of redness at the site of the inoculation more than one half inch in diameter, appearing within three days, is interpreted as a positive reaction, and indicates that the individual may give a local or general reaction to toxoid. These persons may receive toxoid in smaller doses, the first dose ranging from 0.2 to 0.5 c.c. of the 1:20 dilution, depending upon the degree of reaction to the intracutaneous test. Subsequent doses may be given at intervals of two weeks, and may be doubled if the local reaction from the preceding dose was not more than three quarters of an inch in diameter. Reactions up to three inches in diameter call for a repetition of the first dose, while more severe reactions should cause the subsequent dose to be reduced. According to Defries⁹ these reactors are more easily immunized than individuals who are not sensitive to the diphtheria protein.

The extreme susceptibility of the pre-school child has long since eliminated the preliminary Schick test of immunity. For this reason, there seems to be no objection at all to immunizing pre-school children routinely with two 1 c.c. doses of toxoid

given at an interval of three weeks. However, it is well even in this group to test for sensitiveness if there is any reason to believe that the young child is allergic.

In older children it seems to be desirable to perform a preliminary Schick test, because it is equally well recognized, especially in urban communities, that the older children become increasingly immune through contact with carriers, or because of the fact that they may have been carriers themselves. The preliminary Schick test in older children has the additional advantage of separating those who are allergic from those who may be immunized without fear of local or general reactions.

Many other attempts have been made to detoxify toxins. Among these may be mentioned the use of sodium ricinoleate, a soap prepared from castor oil, which was advocated by Larson and his associates.^{11, 12} The advantages of this method have not been definitely shown.

Immunization by nasal instillation of toxoid¹² in various dilutions, as well as immunization through inunctions¹³ have been suggested, but none of these methods have passed the experimental stage, and apparently hold no promise of being superior to the injection of toxoid.

Experience and an examination of the recent literature seem to justify the following conclusions:

1. All children excepting those showing decided allergic tendencies should be given the benefit of active immunization against diphtheria during the pre-school age (six months to six years) without a preliminary Schick test.

2. The best means of accomplishing this is by the administration of not less than two, or not more than three 1 c.c. doses of diphtheria toxoid (Ramon anatoxine) at intervals of three weeks.

3. Children of the school age and adults show more local and general reactions to the bacterial protein of toxoid, so that an intradermal test for sensitiveness should be performed before administering the im-

munizing injections. If evidence of sensitiveness appears within three days after the intradermal test, the doses of toxoid should be altered, and given as follows: 0.1, 0.25, 0.5, 1, and 1 c.c. of diphtheria toxoid at intervals of one week, instead of three weeks.

4. The great susceptibility of the preschool child justifies the elimination of the preliminary Schick test, but it is desirable to perform a preliminary test on older children, especially in urban communities where the opportunity is favorable for acquiring active immunity from exposure to attenuated infections.

5. Rural children show a greater susceptibility to diphtheria as indicated by more Schick positives than city children.

6. It is believed that toxoid will soon replace toxin-antitoxin as an immunizing agent. Toxoid is from 20 to 30 per cent more effective, even in only two doses, it contains no serum to sensitize to later therapeutic sera, it contains no free toxin, it is more stable, and is not affected by freezing.

7. Toxin-antitoxin should be protected against freezing, which is especially likely with modern electrical refrigeration.

8. In the newer conception of diphtheria immunization, it is believed that many of the difficulties which occur in the developmental period of every new departure have been overcome. While the whole procedure of active immunization has been greatly simplified, it is still necessary to use a certain amount of discrimination, and the application of the methods should remain in the hands of physicians, and should not be entrusted to their subordinates. Moreover, it behooves every physician to put forth every effort to inform himself concerning the latest developments, possibilities, and limitations of active immunization against diphtheria.

REFERENCES.

1. Park, William H., and Schroder, May C.: *Am. J. of Public Health*, 22:9, 1932.
2. Salkowski, E.: *Berl. klin. Wehnschr.*, 35:545-549, 1898.

3. Lowenstein, E., Kraus, R., and Baecher, S.: *Wien. klin. Wehnschr.*, 37:561-564 (June 5), 1924; *ab. J. A. M. A.*, 83:161, 1924.
4. Glenny, A. T., and Sudmersen, H. J.: *Hygiene*, 20:176, 1921.
5. Glenny, A. T., Allen, K., and Hopkins, B. E.: *Brit. J. Exper. Path.*, 4:19-27, 1923.
6. Glenny, A. T., and Hopkins, B. E.: *Brit. J. Exper. Path.*, 4:283-288, 1923.
7. Ramon, G.: *Ann. de l'Inst. Pasteur*, 37:1001-1011 (December) 1923 *ibid.*, 38:1, 1924 *Compt. rend. Soc. de Biol.*, 86:661, 1922; *ibid.*, 86, 711, 1922; *ibid.*, 86, 813, 1923; *ibid.*, 89, 2, 1923.
8. Park, W. M., and Schroder, M. C.: *J. A. M. A.*, 81:1432-1435, 1923.
9. Defries: *Pub. Health J.*, 10:210, 1928.
10. Larson, W. P., and Eder, Howard, J. A. M. A., 1, 86:998-999, 1926.
11. Larson, W. P., Huenekens, E. J., and Colby, Woodward: *J. A. M. A.*, 86:1000-1001, 1926.
12. Bizzozzero, R. C.: *Dia med.*, 2:589, 1930; Ivanova, N. G.: *Vrach. gaz.*, 34:1015-1017, 1930; Hosmer-Zambelli, F., and Giannelli, V.: *Clin. pediat.*, 12:868-887, 1930; Segre, R.: *Minerva med.*, 2:721-725, 1930.
13. Nabel, E.: *Wein. klin. Wehnschr.*, 44:75-76, 1931; Meijas, J., and Moreno de Vega, F.: *Siglo. med.*, 37:304-306, 1931; Kegel, A. F., and Gasul, B. M.: *Am. J. Dis. Child.*, 41:45-47, 1931; Blumenthal, G., and Nassau, E.: *Ztschr. f. Kinderh.*, 50:742-747, 1931; Rosenbluth, A.: *Ztschr. f. Kinderh.*, 50:775-780, 1931; Baar, H., and Benedict, H.: *Klin. Wehnschr.*, 9:2395-2396, 1930; Cartagena, L., and Perantoni, P.: *Igiene mod.*, 24:42-51, 1931; Urgoiti, A.: *J. de med. de Bordeaux*, 108:161-163, 1931; Abt., A. F., and Feingold, B. F.: *Am. J. Dis. Child.*, 41:8-14, 1931.

THE ECONOMIC PHASE OF DIPHTHERIA IMMUNIZATION IN NEW ORLEANS.*

JOHN SIGNORELLI, M. D.†

NEW ORLEANS.

I consider it a distinct privilege to participate in this discussion on immunization against diphtheria. Any disease which is capable of attaining epidemic proportions is an economic hazard to the community. Its morbidity, mortality and loss of effective days from the normal fields of activity (be these loss of working days by adults, or

*Read before the Orleans Parish Medical Society, February 22, 1932.

†From the Department of Pediatrics, Louisiana State University Medical Center, New Orleans.

loss of school days by children) are part and parcel of the total cost. Diphtheria, with its ever-present carrier problem, stands foremost among the potential epidemic diseases; each year the crowding together of children incident to school opening sends the diphtheria morbidity curve directly upward, and occasionally we see the outbreak of cases in such numbers as to seriously threaten an epidemic. Such as experience we have just had in our Lafayette School, where investigation brought on by the occurrence of several cases of the disease, led to the discovery of 182 diphtheria carriers.

Evidence of the economic cost of diphtheria is reflected in figures given by Walter Harrison, Surgeon, United States Public Health Service in the last issue of the *American Journal of Public Health*, from whom I quote: "In the registration area of the United States for 1928 there were 8,263 deaths from diphtheria, of which 60 were in children under 5 years of age; of this group the 1st, 2nd and 3rd years furnished the largest number of deaths. It is probably a conservative statement that the immunization of one child in the first five years of life is equal in its effect upon the diphtheria death rate to the immunization of three school children." Our local situation in this matter is recognized by a study of our own figures which show that during the three year period, 1929, 1930, and 1931 New Orleans reported 1729 cases of diphtheria with 75 deaths.

A very conservative estimate of this morbidity would indicate that there was a loss of 12,103 effective days by the patients themselves, while the number of school days lost by other children in the household because of quarantine restrictions would be three times that number, or 36,309 school days. To this is to be added the monetary cost of the direct treatment of the cases, the mental worry, and physical inconvenience of the entire household. We have established evidence furnished by repeated checks with Schick tests that over 90 per cent of all children between the ages of six months and

six years are susceptible to diphtheria; there are, in the city of New Orleans between 55,000 and 60,000 children of pre-school age, and this number is maintained by the annual births which average about 10,000; about one sixth of these children enter school for the first time each year, coming into crowded environments and under restraint of an unaccustomed discipline which tend to lower their general resistance; at the same time these children come into potential contact with diphtheria carriers. Thus it should be no surprise that each school opening sees an increase in the number of diphtheria and other communicable disease cases.

Surely there can be no argument that any safe and effective procedure that would control or eradicate diphtheria in our midst would be a sound investment at almost any cost of money and effort, and should be enthusiastically carried through. All reports, universally backed by clinical experience, show conclusively that immunization of pre-school children with Ramon's "Anatoxin" or "Toxoid," as it is generally called in this country, is safe, effective and free from dangers of sensitization to later doses of therapeutic serum injections, in practically all children under 7 years of age. Further proof of the effectiveness of immunization is found in reports from communities where it has been adopted. Park and Schroeder, Department of Health, New York, writing in the last issue of the *American Journal of Public Health* state: "Deaths from diphtheria in New York City during 1930 were only 198 against 416 for 1929 and 800 for 1920. The figures for the first eight months of 1931 are even better than 1930. This improvement in the diphtheria condition of New York is the direct result of a wide spread immunization campaign extending over a period of 15 years when more than 500,000 school children and 250,000 pre-school children have been immunized." Fitzgerald, Defries and co-workers, University of Toronto, Canada, have this to say: "The results in Hamilton with population

of 150,000 and Brantford with a population of 18,000 may be quoted as examples of communities that have practically eliminated diphtheria." Other localities that have banished diphtheria from their midst are to be found in this country as well as abroad.

Surely the time has come for the city of New Orleans to reduce its diphtheria morbidity and mortality rates. The public justly expects health protection not only from its constituted health authorities, but, to at least an equal extent, it expects such protection from organized medicine, and we cheerfully accept the responsibility at this time by assuring them of our fullest co-operation with the health authorities in this proven method of diphtheria control.

The question naturally arises as to the most effective and safest method of immunization. Diphtheria immunization has become a realization as a result of the work of such men as Behring, Schick, Ramon, Park, Zingher, Schroeder and many others. First, toxin-antitoxin, and later toxoid have been put to the investigative test, and it is universally agreed by all workers and clinicians that immunization by subcutaneous administration of toxoid properly prepared, is from 20 percent to 30 percent more effective than toxin-antitoxin even when only two doses are given; that it is free from local and general reactions in practically all children under 7 years of age; and, that it is also free from dangers of sensitization to later doses of therapeutic serum injections. In toxoid we possess a means by which the eventual eradication of diphtheria is as certain to come as did the eradication of small-pox as a result of the work of Jenner.

As soon as we achieve and maintain com-

morbidity rate to a negligible quantity, and within two generations its appearance in the community will be as rare as is now that of small-pox.

THE TREATMENT OF CERTAIN ACUTE ABDOMINAL CONDITIONS.*

W. H. PARSONS, M. D.,

VICKSBURG, MISS.

Acute abdominal conditions are generally due to one of the following causes:

1. Appendicitis
2. Cholecystitis
3. Intestinal Obstruction
4. Perforated Ulcer
5. Pelvic Disease
6. Pancreatitis
7. Hematogenous Infection of the Kidney
8. Diverticulitis
9. Mesenteric Thrombosis
10. Trauma

My discussion will be limited to a general consideration of the first four conditions enumerated and will deal with the acute phase only.

Moynihan reminds us that few abdominal catastrophies are in the strict sense acute, but rather that they are the result of an abrupt transition from a quiescent to an acute phase in a disorder of long standing. Deaver has repeated this thought when he says that few abdominal emergencies are the result of virgin pathology. Recognizing this fact, we at once sense the importance of a properly taken history. This often will clarify the findings noted on physical examination and clearly establish the diagnosis.

Bowers' report from the Samaritan Hospital in Philadelphia, reviewing more than one thousand abdominal emergencies, noted the following:

	Cases	MORTALITY	
		Early Operation (24 hrs.)	Late Operation (After 24 hours)
Ruptured ulcer	52	4.35 per cent	60 per cent
Intestinal operation	129	13 per cent	63 per cent
Acute appendicitis	751	4 per cent	15.7 per cent

plete immunization of all pre-school children we shall have reduced the diphtheria

*Read before the Section on Surgery at the Sixty-fourth Annual Session of the Mississippi State Medical Association, Jackson, May 13, 1931.

The mortality from other acute abdominal conditions was in about the same ratio. Surely, the above statistics indicate the terrific penalty of delay.

In Mississippi, we find the following mortality record for the years noted:

Deaths from—	1927	1928	1929
Acute appendicitis	324	278	283
Intestinal obstruction	215	226	253
Perforated ulcer	74	76	93
Total	613	580	629

The population of this state was practically unchanged during this period. In that respect our mortality record in the management of acute abdominal catastrophies was similar.

In the United States, we find the following mortality record for the years indicated:

Year	From all causes	Appendicitis	Per cent	Intestinal Obstruction	Per cent
1920	1,142,558	11,702	1.02	6,026	0.5
1929	1,386,363	17,687	1.2	7,776	0.56

The percentage of deaths from appendicitis and intestinal obstruction actually increased during the past decade. We cannot accept this increase with equanimity. A reduction of mortality is not likely to come from improved operative technic. That appears largely to have been standardized and not susceptible at this moment to improvement. If we are to reduce our death rate it must be done by lack of meddling interference in cases that may prove ultimately surgical and by prompt recognition and treatment of the acute abdominal calamities.

Delay in establishing the diagnosis, or in instituting surgical treatment once the diagnosis is established, accounts largely for the high mortality noted. In the interim until diagnosis is made, a policy of masterful inactivity is superior to questionable therapy. Where doubt exists as to the value of a procedure or medication, the wisdom of withholding such measure is likely to be justified. It would seem idle to continue repeating that no patient having abdominal pain should receive an anodyne, or a purgative, until, beyond question of doubt, we have established the diagnosis. To con-

tinue reiterating a thought means either a paucity of ideas or else a strong conviction. Certainly, the profession is, and for years has been, convinced that abdominal pain forbids relief; forbids purgation, until a surgical lesion is known not to exist. Yet, our experience has been that almost every perforated appendix we encounter has been purged, and that has been the experience of all surgeons. The time to open the acute abdomen is before peritonitis has developed. The wisdom of delaying surgery in certain cases of diffuse, spreading peritonitis likewise, cannot be denied.

Abdominal pain with nausea, with or without vomiting and with constipation, is almost certainly surgical. Abdominal pain

with nausea and diarrhea is almost certainly medical. Hendon several years ago made this statement and observation will prove its correctness.

Pain is a constant feature in all intra-abdominal pathology. Its character and location may vary, its presence does not. Its occurrence is always significant, its continuance makes imperative the determination of its cause. Pain is never absent in the presence of acute intra-abdominal pathology.

Nausea and vomiting are always of significance; the more so if continued. Stercoraceous vomiting signifies nothing except that a mortality is about to occur. To continue to teach that fecal vomiting is a sign of intestinal obstruction is about as helpful as to suggest establishing the diagnosis of fractured skull upon the finding of brain tissue oozing from a cranial wound.

Shock, except when associated with hemorrhage, is not an early sign. Its appearance usually means overwhelming toxemia.

A consistently elevated pulse rate is of importance. The finding of rigidity makes fairly certain the opinion that the underlying viscus is involved. Its absence does not

necessarily eliminate from consideration that viscus thought to be beneath. We may well bear in mind that our opinion of the location of the intra-abdominal viscera may not be correct.

The history is of the greatest importance. Carefully elicited and properly evaluated, it will probably point the way to the correct diagnosis.

Abdominal pain lasting more than six hours, if associated with increased pulse rate, vomiting and constipation, should have surgical intervention. If doubtful as to the findings that exist, the incision should be central, the lesion located and appropriately dealt with. It is, under certain conditions, merciful to be merciless and conservative to be radical. Exploration ought not to be postponed over long, nor should surgical procedures be over zealous.

Adequate laboratory examinations should be made including estimation of the blood sugar and urea, but blind, unreasoning demand for, and reliance upon, laboratory aids identifies the robot, not the disease.

Rectal and vaginal examinations should not be omitted.

Following surgery, the maintenance of body heat, preferably by the Crile method of diathermy, is valuable. Reduction of one degree in the temperature of the liver, reduces its function ten per cent.

Recollection of this well known law will increase our efforts toward holding at normal, or above normal, the temperature of the intra-abdominal viscera.

The administration of fluids in large quantity is usually essential and possibly safest done by the intravenous drip employing the method of Hendon. This technic enables one to actually carry out absolute rest of the gastro-intestinal tract for an indefinite period of time and makes one independent of that tract without endangering the cardio-vascular system by too sudden an over load. It is true that life cannot be indefinitely carried on by artificial means but the temporary gap may well be bridged. Continuous drainage of the stomach by

the nasal tube with continuous suction by the method of Ward is of undisputed value.

Paralytic ileus, the result of peritonitis, presents a real surgical problem. The esteem in which enterostomy is held varies greatly. The majority of well established surgeons feel it is of no value. Deaver thinks that under certain conditions it helps; Barksdale, Shivers and Hendon think it is of no use; Counsellor has seen it succeed brilliantly and fail miserably. On several occasions, I have had patients in extremis, improve promptly and recover smoothly following its induction. Until something better is offered, I shall, therefore, continue to establish enterostomy on those cases of ileus that do not respond to gastric drainage, the administration of fluids and chlorides, the application of heat over the abdomen and other orthodox measures. And for my part, I shall not delay enterostomy until the patient is clammy and well nigh dead. Considerable doubt exists that drugs such as pituitrin or eserine, are of any value in stimulating peristalsis. Oschner, Gage and Cutting state that none of these drugs influence peristalsis favorably. Da Costa advocates eserine; Deaver favors eserine and strychnine. Personally, I have observed on many occasions that intestinal evacuation did occur after the administration of pituitrin and I believe that this drug does often cause peristalsis. Their use in cases of paralytic ileus, however, has been of no great aid to me.

Intra-spinal anesthesia, in spite of its present popularity, is still in certain cases definitely more hazardous than ether. The extra risk is more than compensated for, however, in dealing with acute abdominal conditions and I feel that it is one of our greatest assets in this particular type of work. The perfect relaxation reduces dissemination of infection, makes the operative technic vastly more simple, and remote complications are less apt to occur.

Acute appendicitis can generally be recognized. It should always be suspected.

If diffuse peritonitis has already developed, then waiting for localization, meanwhile employing absolute physiologic and anatomic rest, is often the safest procedure. Deaver states that he has no patience with the doctor who boasts that he always opens the abdomen no matter what the stage of peritonitis may be, nor does he envy him his death rate. In other words, he holds with Richardson that there are cases too early for late operation and too late for early operation.

Acute cholecystitis presents usually an antecedent history of qualitative food dyspepsia. The history coupled with the usual findings generally establishes the diagnosis. These cases ultimately are surgical, but I think are best not operated upon during the acute stage. Under strict rest, they tend to localize and later operation is safer. The ultra acute case may require immediate surgery in which event, the least consistent with removing the pathologic tissue should be done. One should be careful not to overstep the margin of safety.

Acute intestinal obstruction is generally announced by the sudden onset of intermittent pain, persistent nausea and sometimes vomiting and relative constipation. These individuals frequently present abdominal scars which serve, or should serve, to draw our attention to the diagnosis. To wait for stercoraceous vomiting, distention or inability to pass gas is to seal the patient's doom. Mayo has suggested the induction of spinal anesthesia which by blocking of the sympathetics removes that factor of inhibition to peristalsis and permits the vagus to act unchecked. If bowel movement does not occur, we may then proceed with surgery. Ochsner, Gage and Cutting have contributed valuable information relative to the action of the splanchnic system on the inhibition of peristalsis.

Perforated ulcer produces an absolute rigidity which is well nigh diagnostic. The history is generally definite. Surgery should be immediate and in my hands con-

sists almost invariably of merely closing the perforation.

In conclusion, I cannot do better than to quote that distinguished surgeon, Urban Maes, who says, "I hold no brief for promiscuous surgery, but I do believe that in that type of case in which after every diagnostic aid has been exhausted, the pathology is still obscure and the patient's condition growing steadily worse, an exploratory operation is a truly conservative procedure."

BIBLIOGRAPHY.

- Maes, Urban: Diagnosis and treatment of acute abdominal pathology. *Am. Jour. Surg.*, 6:169-174, 1929.
- Bowers, John: Quoted by Maes in, Diagnosis and treatment of acute abdominal pathology. *Am. Jour. Surg.*, 6:169-174, 1929.
- Deaver, John B.: The acute abdomen. *Surg. Gyn. and Obstet.*, 39:744-750, 1924.
- Deaver, John B.: When and when not to open the abdomen in acute surgical conditions. *Ann. Surg.*, 89:340-353, 1929.
- Deaver, John B.: Personal Communication.
- Hendon, G. A.: Personal Communication.
- Barksdale, J. W.: Personal Communication.
- Shivers, M. O.: Personal Communication.
- Counsellor, V. S.: Personal Communication.
- Ochsner, A. L., Gage, I. M., and Cutting, R.: The value of drugs in relief of ileus. *Arch. Surg.* 21:924-958, 1930.
- Ochsner, A. L., Gage, I. M., and Cutting, R.: Treatment of ileus by splanchnic anesthesia. *Jour. Am. Med. Assoc.* 90:1847-1853, 1928.

DISCUSSION.

Dr. W. W. Crawford (Hattiesburg): It seems to me we should not be called upon throughout the years to emphasize the necessity of certain fundamental things in connection with an acute abdominal condition. The doctor has seen fit to do it today, and he has done it because of the fact that his experience and that of others practitioners and surgeons over the country has indicated that it is necessary to emphasize again two vital things.

A recognition and practicing of these two vital things would make a tremendous difference in the simplicity of the management of acute abdominal conditions. The first one is that no patient with an acute abdomen should ever be given any sort of a purgative until a diagnosis has been made. That is so fundamental, gentlemen, it seems to me we should not have day after day and over and over again, our patients coming to the hospital and to the surgeon with the history of having taken an active purgative. I grant you in most of these instances these days it is because the family has undertaken to correct this problem

without the aid of the doctor, and when some one of the family group has developed acute abdominal pain they have sought to relieve it by the administration of large doses of castor oil and so forth. There are still some doctors, though, who seem to fail to recognize that no such thing as a purgative should be thought of in connection with acute abdominal conditions. I think I understand the psychology of the man who does that. I am reminded, as I stand before you now, a certain very good friend of mine who some years ago said, "Why, doctor, I have had thirteen cases of appendicitis, and I have treated them medically, gave them laxatives, usually, and all of them have gotten well." That is the unfortunate feature about it. We know a large number of cases would get well if given purgatives, because in a great many instances the attack is of minor importance before it is associated with an acute abdominal condition.

Dr. H. A. Gamble (Greenville): I feel the mortality rate in these cases can be lowered, first, by non-delay, and, second I am convinced there could be changes in technic that will lower our death rate.

When I was asked to discuss Dr. Parson's paper I had my secretary go over our appendicitis records from 1918. There were 2791 cases; 651 of them were acute conditions. Of the deaths that occurred, they all occurred in the 651 cases—seven deaths; and in none of these patients did death occur where they had been sick less than 24 hours. Some of them had been sick five or six days, some of them had general peritonitis, but there were some of these cases I feel could have been saved had the patient received treatment early enough.

On the question of technic, the laboratory is of great aid to us in the treatment of these conditions and the after-treatment of them. In cases that have settled into abdominal lesions, perforated ulcer, obstruction of the bowels—I am practically sure after actual infection takes place—I feel that we are dealing with general peritonitis secondary to them. Wherever we deal with gangrenous appendicitis, where we deal with perforated ulcer, we should take measures to prevent the spread of infection through the system.

Dr. R. L. Sanders (Memphis, Tenn.): In my opinion, no subject is more important than the one Dr. Parsons has discussed today. We could well afford to spend the entire session on the subject of acute abdominal diseases. Let us, however, select a few high points in the paper.

First, we shall consider pain. Dr. Deaver used to say, "Pain—knife!" He did not necessarily mean to convey the idea that every abdomen should be opened when pain is present, but he was trying to emphasize the imperative need for a careful investigation and proper treatment when an unusual abdominal pain occurs. He believed,

as we do, that abdominal exploration would safeguard the lives of many patients suffering from acute abdominal pain.

The second high point was forcefully brought out by Dr. Parsons in his discussion of the patient's chance of recovery when based on the time element. "Delay" is a sad word in the surgeon's vocabulary. If our people could realize that twenty-four hours is a dead line, and all who receive attention on this side of that line may be spared, whereas, many who go beyond may be lost, it would mean much toward the saving of lives.

The third point is the danger of purgatives. Looking back over my twenty-five years of surgical practice, I do not recall a single case of perforated appendix in which the patient had not taken a purgative. We, as physicians, should preach the danger of purgatives at every opportunity, until our people are conscious in the dire consequences of their administration in the presence of abdominal pain.

I would like to refer to Dr. Hugh Gamble's remarks about perforating ulcers. His experience coincides with mine. I shall briefly enumerate some of the chief points in the diagnosis of perforating ulcers. The onset is usually so sudden, the pain so severe, and the suffering so intolerable that there is usually little doubt as to the diagnosis. Moynihan has stressed the fact that these patients are peculiarly immobile. They fall anywhere at the onset of the attack and resent all efforts to be moved, and even resent the approach of the examining hand. Rigidity soon appears. Signs of shock, nausea and vomiting, and rapid pulse rate are usually absent until peritonitis develops. In this case, treatment should be directed especially toward the peritonitis, rather than toward the ulcer.

INDUCED PARALYSIS OF THE DIAPHRAGM.*

J. W. BARKSDALE, M. D.,

JACKSON, MISS.,

AND

S. F. STRAIN, M. D.,

SANATORIUM, MISS.

The caption of this paper is that used by Yates and Raine¹ in a most excellent article on surgery of the phrenic nerve and a title which we prefer to "Phrenicectomy," as diaphragmatic paralysis is the ultimate end desired and may be brought about by crushing of the phrenic nerve (phrenem-

*Read before the Section on Surgery at the Sixty-fourth Annual Session of the Mississippi State Medical Association, Jackson, May 13, 1931.

phraxis), phrenicectomy, removal in part, or by exaeresis, which contemplates the removal of the nerve in its entirety together with its accessory branches. Phrenicotomy or section of the nerve, so far as we are able to ascertain, was first suggested by Steurtz² in 1911, but to quote Frank and Miller,³ "unfortunately, section of the phrenic nerve or phrenicotomy did not produce results in all cases. This was due to the fact, as was demonstrated by Felix in 1922, that the phrenic nerve often gets branches from the nerve to the subclavious muscle and also possibly from the hypoglossal, spinal accessory, vagus or subscapular nerve through the ansahypoglossi." There are other anomalies of the nerve such as aberrant or accessory branches that are to be met occasionally in addition to those enumerated.

Inducing diaphragmatic paralysis, except when very transitory, as would be desired in operation on the diaphragm itself (*e. g.*, diaphragmatic hernia), contemplates a reduction in volume of the chest capacity and a complete arrest, as far as possible, of diaphragmatic movement on the operated side. This reduction in volume is variously estimated at from 10 per cent to even as much as one-third. However, it becomes a therapeutic measure of first importance in the treatment of pulmonary tuberculosis with cavitation, as well as in other forms of pulmonary disease, particularly where artificial pneumothorax cannot be successfully given by reason of adhesions between the parietal and visceral pleurae. It is not to be inferred that phrenicectomy is advocated as a procedure to take the place of artificial pneumothorax nor, on the other hand, do we feel that its field of application should be limited to those cases in which artificial pneumothorax cannot be successfully undertaken, but that in selected cases, particularly lower lobe lesions (cavities, abscesses, bronchiectasis), the best results are to be expected from a combination of these two measures.

Andrus and Wilson⁴ state that after

diaphragmatic paralysis, where the ascent of the diaphragm is not impeded by adhesions, the lungs and visceral pleura of human beings and animals with thick pleurae receive the largest unit volume of blood through the bronchial vessels and the lungs receive the largest volume of blood through the pulmonary vessels. Both volumes are delivered with less than usual cardiac labor because peripheral intravascular resistance is so nearly minimal. The reduction in volume of the lung permits of the obliteration of cavities in a very satisfactory percentage of cases. O'Brien⁵ in 378 cases reports 191 of 50.5 per cent of cavities closed following operation, 119 or 31.2 per cent becoming smaller after operation. Thus we have a total of 310 or 81.7 per cent either closed or reduced in size. It, therefore, necessarily follows that with reduction in size and obliteration of cavities there should be a tremendous decrease in the toxicity engendered in such lesions as, indeed, we find to be the case as evidenced by reduction of temperature, improvement or cessation of cough and expectoration and other manifestations of a betterment in the patient's physical condition.

While bilateral phrenicectomy has been advocated in some instances, it is our opinion that operation on the phrenic nerve should be restricted to cases of unilateral disease or at least to cases in which there is but slight involvement of the other lung.

In O'Brien's series of cases, he reports 26 per cent in which the disease in the contra-lateral lung healed completely along with the lesions in the operative side and 52.7 per cent in which the lesions in the contra-lateral lung improved. At this point it may be stated that phrenicectomy has often proved to be a life-saving procedure in cases of pulmonary hemorrhage where collapse of the lung could not be secured on account of pre-existing adhesions. This operation should also be done as a preliminary measure where thoracoplasty is to be undertaken.

Quite a good deal has been written with reference to the dangers attendant on phrenic exairesis yet one author in a series of 150 patients has not encountered any operative difficulty, and another in a series of 700 states that he has thus far escaped "unfortunate accidents." Nevertheless, it is to be borne in mind that accessory branches of the nerve may be found looped around the subclavian vein and around the thoracic duct and that both of these vessels have been injured in the extraction of the nerve.

Horsley⁶ reports a case of phrenic exairesis with extraction of 32.5 cm. of the nerve. We wish to exhibit here a left phrenic nerve which we recently removed which, together with its terminal filament, measured 40 cm., the main trunk of the nerve being 34.3 cm. in length.

We shall not enter into a detailed description of the operation but merely wish to state that it can readily be undertaken under local anesthesia and that there should not necessarily be any interruption of the patient's usual hospital routine. Suffice it to say that a thorough and comprehensive knowledge of the anatomical structures to be encountered and a certain degree of technical skill are essential.

During the past year we have performed the operation upon sixteen patients at the Mississippi State Sanatorium. In all of these cases an attempt has been made to remove as much of the phrenic nerve as possible,—the radical phrenicectomy of Felix, "phrenic exairesis." While upward of 10 cm. was removed in most instances, in four cases the nerve broke before that much could be obtained. The operation was done under local anesthesia and except for some pain during the extraction of the nerve, from irritation of the mediastinal pleura, or from connections with other nerves, very little discomfort was suffered by the patient either during or after the operation. In none of our patients was there any immediate post-operative complication. One patient, with far advanced pulmonary disease, and

laryngeal involvement, developed a tuberculous pneumonia about three days after the operation and died six weeks later. In one patient hemidiaphragmatic paralysis was only transitory, but even then there was definite improvement in her general condition which has continued.

While it is too recent to say just what the ultimate results in our cases may be, we have seen much benefit derived from the operation in eight of the sixteen patients operated upon. Cough was made easier or ceased altogether and after a temporary increase there was a marked decrease in the amount of sputum and a diminution or cessation of toxic symptoms. One patient who had been subject to repeated hemorrhages and frequent periods of pyrexia has been entirely free from both since the operation (four months.) A large cavity in his upper right chest has diminished to one-fourth of its former size in this brief period. In five cases improvement has been very slight or not at all. In all these the elevation of the diaphragm was prevented by dense pleural adhesions and cavities have been affected only slightly. It is hoped, however, that some of these patients will improve to such an extent that a thoracoplasty might be permissible later.

Phrenicectomy then, when employed in carefully selected cases, is an operation of great value, but it must be clearly understood that it is only an adjunct to the fundamental "rest cure" and can in no way be expected to replace it. Close cooperation between the internist and the surgeon is necessary to get the greatest good from this procedure.

BIBLIOGRAPHY.

1. Yates, J. L., and Raine, Forrester.: Induced paralysis of the diaphragm. *Arch. Surg.*, 21:666, 1930.
2. Steurtz, quoted by Thearle.: *Jour. Am. Med. Assn.*, 86:811, 1926.
3. Frank, L. W., and Miller, O. O.: Phrenic exairesis in the treatment of pulmonary tuberculosis. *Tr. South. Surg. Assn.*, 62:53, 1929.
4. Quoted by Yates & Raine.: *Arch. Surg.*, 21:667, 1930.
5. O'Brien, E. J.: Phrenic nerve operations in pulmon-

ary tuberculosis. Jour. Am. Med. Assn. 95:650, 1930.

6. Horsley, J. S.: Phrenico-exeresis with extractions of twenty-two and five-tenths centimeters of the left phrenic nerve. Jour. Am. Med. Assn., 94:1490, 1930.

DISCUSSION.

Dr. John Darrington, (Yazoo City) It is to the credit of the medical profession that it is constantly endeavoring to prevent disease and relieve suffering and prolong life. We are the only body of men I know of that is trying, you might say, to kill our business, and I am impressed at the present moment with the fear that we are about to succeed.

When we discovered the cause of tuberculosis, we thought the end was in sight. That hasn't proven to be true. Some diseases we have about eliminated without finding the cause,—smallpox, for instance, but not tuberculosis. We are making a good fight, but we are not succeeding up to our expectations. All we have learned about tuberculosis up to today is that by taking the proper measure we will cure a certain per cent of the early cases. Tuberculosis results in a tremendous economic loss, not only to the individuals, but to the state and communities trying to take care of these people, and, therefore, we welcome anything that will seem to add a little to our percentage of cures, and no doubt but that the method as described by the essayist is a step in that direction. This is not a brand new thing; it has been tried by surgeons throughout the country, and has been in use a good many years, but it has been worked out recently to where it has given results which are somewhat more encouraging. One of the chief things about this paper is the confidence we have in the essayist. When he makes the statement he has secured certain results, we accept that as facts.

Alexander reported 200 cases in which there was a marked improvement of 10 per cent in the properly selected cases. He gave a series of 100 cases that were far advanced. Out of that 100 he had eight cases in which he had at least a symptomatic cure. So, he had eight patients that were cured by this method that would not have been cured by any other method we have now available.

These things are encouraging and I feel it is one step more to the relief of a disease that is, you might say, universal; it is a widespread disease of the human race, and except for our natural immunity this world would be swept clean of people. Some one has said every man had tuberculosis at sometime during his life. An examination of cadavers would seem to confirm that opinion,—scar tissue found in almost every lung.

So, I say, if we get the correct impression about this, in properly selected cases,—it is not a uni-

versal cure,—but in properly selected cases we are going to be able to do something for a certain number of tuberculous people we haven't been able to do anything for by any known method. I thank you, gentlemen.

Dr. T. W. Holmes (Winona). I enjoyed the paper very much. I hope to see more like it.

Dr. Barksdale (Closing): I want to thank Dr. Darrington and Dr. Holmes. I also want to thank the authorities at the Tuberculosis Sanatorium for the opportunity they have given me of doing this work.

I want to endorse what Dr. Darrington has said about the type of cases in which it is proper to do this operation. Until somewhat late in the summer of last year or early fall, this had never been done at our state institution. I went to Memphis and did some work for a few days and found it wasn't done in Memphis as far as I was able to determine.

The impetus to do this, I think, came from a visit from a doctor of Cincinnati, a man who is nationally known. In a staff conference at the sanatorium the question of phrenicectomy was brought up, and it was the consensus of opinion that none had been done there, and it was decided to do it there, but to be very cautious in the selection of the patients. That was a happy medium. The middle of the road is always the safest. I hear so many arguments along these lines, either too conservative or too radical, but I think up to the present time we have been a little bit too conservative in the selection of patients on whom we have done these operations. In other words, it is the moderately sick man, the moderately advanced case, that can expect to get the greatest amount of relief from this operation. Obviously any therapeutic procedure or any other measure instituted when a patient is in extremis is going to be more or less worthless. I do not know that the operation should be limited to cases in which pneumothorax can be given, where the lift you get to your lungs is what you get from your diaphragm alone. You get your lift from artificial pneumothorax, but notwithstanding that you have the movement of the diaphragm up and down and there must be some movement communicated to the lungs by the air in the pleural cavity.

We have been feeling our way slowly at the sanatorium. I believe as we are enabled to watch our results a little more closely, the field of this operation will be broadened somewhat and we will begin to use it, perhaps, with a little more freedom than we have in the past. Instead of waiting until we see a patient with tremendous cavities,—and I may say cavities in the upper lobe is the least favorable condition for improvement, the most beneficial results have been obtained in

the lower lobe conditions,—we will begin to use it more as a routine procedure, not in all cases, but in cases of moderately advanced disease, and I think we will begin to get results. As Dr. Strain has said, it is a matter for co-operation between the internist and the surgeon. I consider the surgeon merely the instrument to bring about the mechanical means of correcting what has been found by the internist. I think it is a wise check to have the internist pass on the patient before he goes to the surgeon and say this is a proper case for phrenicectomy and abide by the decision.

THE ROENTGEN RAY TREATMENT OF INFLAMMATORY AND NON- MALIGNANT CONDITIONS.*

E. B. VAN NESS, M. D.,

JACKSON, MISS.

That roentgen ray therapy is of great value in the treatment of many diseases other than malignancies is no longer a matter of theory or conjecture. It has been subjected to thorough clinical trial in the treatment of many diseases and has proven itself to be of value in many. In others, it is still too early to get a true idea of its value. It is not a cure-all which will supplant all other methods, but it is a very valuable addition to the weapons with which we fight disease. It is not my purpose in this paper to discuss a long list of diseases which can be treated by this method, or to go into technical details as to the method of treatment. I shall present for your consideration as briefly as possible some of the more common diseases in which roentgen ray treatment is well established.

ERYSIPELAS.

Good results are usually obtained if the treatment is given early. Improvement is noted in from six to twenty-four hours and progresses rapidly. Not all cases will respond, and in the treatment of children the effectiveness is not as great as in adults. The method, however, is painless, is unattended by local systemic reactions, and

even though it does little good in some cases, can do no harm. The patients treated by this method seldom develop complications. It is important that a surrounding zone of normal tissue should be included in the field exposed.

CARBUNCLES AND FURUNCLES.

Benefit here is prompt and marked, especially if the treatment is given before the stage of suppurative. The pain, which is such a dominant symptom in these conditions, begins to lessen in from four to twenty-four hours. Relief of the pain and tenderness usually enables the patient to go about with more freedom. If treated early, many will never reach the stage of suppurative, and in those that do the course will be shortened and less severe. In the suppurative stages it is less effective, but here also it will relieve pain and shorten the course. This method has in its favor that it is painless, requires only a few minutes to administer, and is inexpensive. It is of greatest value in the early stages when other methods can do little, and often renders more drastic measures unnecessary.

CELLULITIS.

Phlegmon and lymphangitis do not as a rule respond as well as do furuncles and carbuncle, but in many cases the pain can be relieved and the duration shortened.

TUBERCULOUS ADENITIS.

Roentgen ray is the treatment of choice here, and results are obtained which can not be duplicated by any other method of treatment. The process may involve only one group of glands, one side of the neck, or large groups of glands on both sides. The glands may be hard, semi-hard, or soft and fluctuant. If they are definitely soft, fluctuant, and caseous, roentgen ray treatment is contraindicated until there is free drainage. The majority will respond after one treatment, but it may be necessary to repeat at intervals of seven to ten days in the more chronic type. If after three or four treatments there has not been a definite improvement, it is doubtful if further radiation is worth-while. If following treatment the glands become soft and fluc-

*Read before the Section on Radiology at the Sixty-fourth Annual Session of the Mississippi State Medical Association, Jackson, May 13, 1931.

tuant, they must be thoroughly evacuated before continuing.

ADENITIS DUE TO PYOGENIC ORGANISMS.

These will also give good response to radiation in many cases. Improvement occurs within twelve to thirty-six hours, the pain and other symptoms will be lessened, and the course greatly shortened. The glands are much less likely to break down and surgery is usually avoided. If the glands have already reached the suppurative stage, roentgen ray treatment is contraindicated until there is free drainage. One treatment is usually sufficient, but in some it may be necessary to give two or three at seven to ten day intervals.

INFLAMMATORY DISEASE OF THE LACHRYMAL, SALIVARY AND PAROTID GLANDS.

These conditions are also favorably influenced by roentgen ray therapy. It is especially valuable in cases of post-operative parotitis. The acuteness of the disease is relieved, the course shortened, and very few fatalities occur.

TUBERCULOUS PERITONITIS.

This disease will in many instances show a very gratifying response to irradiation. If there is an ascites, the fluid should be aspirated before treating. The entire abdomen is included in the field of exposure, alternating front and back.

PELVIC INFLAMMATORY DISEASE OF THE CHRONIC TYPE.

Is often benefited by roentgen ray treatment. In the acute cases radiation should never be given. Several authors report exceptionally good results from this type of treatment in as many as seventy-five per cent of the patients so treated.

MASTITIS.

Inflammatory conditions of the glandular structures of the breast are as favorably affected by roentgen ray treatment as are the other types of adenitis. Not only is there a marked analgesic effect, but the course is shortened and surgical measures are less likely to be necessary. If it has reached the suppurative stage, radiation is contraindicated until there is free drainage. Several treatments at weekly intervals may be required.

TRACHOMA.

Roentgen-ray treatment of this disease of the eyelids will result in complete cure in the majority of case. A few will recur, but the recurrent lesions respond quickly to additional doses. Three or four small doses at weekly intervals are usually sufficient.

PARONYCHIA.

The simple form of paronychia due to a bacterial infection heals readily following one or two treatments with superficial roentgen-ray therapy. The more chronic type which is due to some parasitic infection is much more resistant, must be treated over a longer period, and is apt to give a much lower percentage of cures.

BURNS.

In both thermal and chemical burns treatment with fractional doses of roentgen ray has considerable analgesic effect. The accompanying inflammatory reactions is also apt to be much less severe.

PLANTAR WARTS AND CORNS.

These can often be successfully removed by means of the roentgen rays. Here a much larger dosage is used and the normal tissues must be carefully shielded with lead. The horny superficial layers should be removed before treating. Most plantar warts can be removed by this method. Corns are not so amenable to treatment.

THYMUS.

Little need be said as to the treatment of thymic disease as it is almost universally recognized that roentgen ray is the only really effective method. If properly given the treatment is in no way dangerous as the dosage is so small that it can not harm normal tissues whose resistance to irradiation is much greater than the lymphoid tissue of the thymus. Sufficient dosage should be used to accomplish the desired result in one or two treatments. If two areas can be treated, one over the anterior and one over the posterior aspect, it will seldom be necessary to repeat. If after three treatments the condition is not greatly improved it is probable that the thymus is not the offender even though it be larger than normal.

PERTUSSIS.

In many cases of whooping cough the persistent, spasmodic cough can be relieved by roentgen ray treatment. The relief is usually prompt and increases rapidly as additional doses are given. Fractional doses are given at weekly intervals over both the anterior and the posterior chest, alternating with each treatment. Large doses are not necessary.

ASTHMA.

Occasionally roentgen ray treatment will relieve asthmatic attacks where other measures fail. It of course can not cure asthma due to allergy, but may have a distinct analgesic and antispasmodic effect during acute attacks. It is only a temporary measure and can not give permanent relief.

THYROID DISEASE.

It has become a common idea among many surgeons that roentgen ray treatment is contraindicated in that it results in an increased fibrosis of the pericapsular tissue which makes subsequent surgical measures more difficult. This idea remains to be proven. Many men have reported that there is no more fibrosis after irradiation than in those cases not irradiated. It is difficult to see how three or four fractional doses of roentgen rays could result in much fibrosis. Colloidal and cystic goiters should be treated surgically and never by roentgen ray. In the toxic adenomata and exophthalmic types, some can be cured by means of roentgen ray treatment alone; others can be improved to such an extent that they become much better surgical risks. Its advantages over surgery are that it has a mortality rate of practically zero; it is painless and can be given without discomfort to the patient; if properly given the chances of a burn are practically nil. Its great disadvantage, that it is slower than surgery, is after all a minor one.

BENIGN UTERINE HEMORRHAGE.

Here radiation therapy is of great value. Either roentgen ray or radium may be equally effective, but roentgen ray has the

advantage in that it is given quickly, painlessly and hospitalization is not necessary. Cases of menorrhagia in women past the child-bearing age can almost universally be cured by irradiation. Here the treatment is to produce castration and a permanent menopause. In women still in the child-bearing age smaller doses should be used to produce a temporary menopause lasting from six months to a year. Whether the bleeding is primarily ovarian or due to an endometritis which does not respond to curettage and other measures, radiation is equally effective. Bleeding due to uterine fibroids can be stopped and the tumors will regress under radiation treatment. However, if the tumor is large, if there is pelvic inflammatory disease, if the tumor is complicating pregnancy, or if the woman is young and in the child-bearing age, surgery is the method of choice. If the woman is past the age of child bearing or is a poor surgical risk, radiation should be used.

SUMMARY.

It has not been my purpose to go very deeply into the exact technic used in the treatment of these conditions. As a rule the treatment of the inflammatory conditions varies little. Fractional doses are used which seldom exceed one-third to one-half of an erythema dose. Hence the treatment, even if it benefits the patient little, can certainly do no harm. Most of these treatments are given with moderate voltages and filtration, usually varying from one hundred to one hundred and forty peak kilovolts and with either four millimeters aluminum or with quarter millimeter copper and one aluminum filters. These factors will vary slightly according to the condition being treated and with the individual preference of the radiologist. The more superficial lesions may be treated with the longer wave lengths. Most men report that the best results are obtained with initial doses of from one-tenth to one-third of an erythema.

Roentgen ray treatment can not entirely supplant other methods, nor should anyone attempt to make it the only treatment.

The best results will only be accomplished by the close cooperation between the attending physicians and the radiologist. It is a very valuable means of therapy which should be for the mutual benefit of the patient, the attending physicians, and the radiologist. The latter must curb his enthusiasm and advise the use of roentgen ray only where it is indicated, promising neither too little nor too much in the results. Not the least part of his cooperation is to see that the charges are not too expensive. Neither the patient nor the attending physician are going to be satisfied with a charge of ten or fifteen dollars for roentgen ray treatment, when the charge for surgical treatment is much less, even though it is more painful and requires a longer time to get well.

On the other hand, if the physician or surgeon is going to judge solely on successful results, it is only fair that he give the radiologist a chance to treat these cases early in the disease when the maximum effect can be obtained. If only those cases which have failed to respond to all other remedies and are considered hopeless are referred to the radiologist as a last resort, do not expect anything but poor results. If radiation therapy is given a fair and thorough trial, used early in the disease and in conjunction with the proper medical or surgical supervision, I think that you will be very agreeably surprised at the excellent results which can be obtained in the majority of cases.

DISCUSSION.

Dr. C. A. Everett (Bude, Miss.): I enjoyed the paper very much. It inculcates many reasons why the roentgen ray should delve deeply into therapeutics. I believe it behooves us as a unit to concentrate our study into a strictly specialized study.

From the patients I have referred, I have found the results just as the essayist has mentioned.

Dr. M. D. Ratcliff (McComb): There is one thing that will give us happy results, and that is to give roentgen ray treatment for herpes zoster, covering the area of eruption.

Dr. E. B. Van Ness (closing): The time was limited so I did not attempt to take up therapy in skin diseases, but it is pretty well established and generally known.

THE ROENTGEN RAY IN THE DIAGNOSIS OF MALIGNANCY.*

E. C. SAMUEL, M. D.,

AND

E. R. BOWIE, M. D.,

NEW ORLEANS.

The problem of malignancy is one which is perennial and one which is familiar to all of us because, no matter what our specialty, we meet with it sooner or later. It is even familiar to us as one of our most common phobias and this notion is so universal that for the majority of us, we have only to think well to recall the time when the fear of malignancy has assailed us and we were the uneasy patient seeking and yet fearing enlightenment at the hands of our chosen physician.

Again, malignancy is one field in which the education of the laity has proceeded to a very considerable degree until it has almost become possible for the intelligent layman to have as complete a knowledge as many of us, with the difference that he lacks the practical side which we should possess. There is no wish to belittle this education of the laymen and it is only emphasized that we realize the better how vitally important is the need for us to keep pace. This educational campaign stresses, among other features, the vital necessity for the early diagnosis of the disease and sends to us increasingly large numbers of patients who seek to know whether or not they have "cancer".

Just how are we to proceed and just what if any dependable aids in diagnosis do we have at our command? It is with the reply to the second of these queries that we are interested and, to be again more specific, with the field of roentgen ray as a diagnostic aid in malignancy. Unfortunately, it is in diagnosis that the roentgen ray has its greatest field in malignancy in spite of all the hopes we have had at various times that in radiation we had at our command the most important

*Read before the Louisiana State Medical Society, New Orleans, April 14-16, 1931.

therapeutic agent available in the treatment of this condition. In the early days of radiation, the roentgen ray was hailed as the long sought means whereby malignancy might be conquered without the sacrifice of the individual. Our hopes were soon shattered only to be raised again from time to time with new sets of statistics and results, new technic, new coordination of radiation and surgery. Our last great hope from roentgen ray in malignancy came several years ago with the advent of deep therapy or, as some of us may term it, short wave therapy. Unfortunately, our hopes were only roused to be again shattered. Not that we face now or have at any time such failure of roentgen ray as a therapeutic agent as to justify its abandonment. Far from it. We are continually, even though slowly, advancing and we are not losing any of the ground we have gained. It is merely that our bursts of optimism have not been lasting.

In the field of diagnosis, however, the progress has been much more definite and satisfactory. There are many of us who have no great experience in malignancy owing to the fortunes of our practice, or rather perhaps their limitations, and when the possibility exists, that there is before us a case of malignancy, we naturally seek whatever there may be of definite, tangible certainty to supplement the purely clinical picture, just as in a suspected diphtheritic throat we seek the confirmation of the microscope, no matter how clear cut the clinical features may be.

It is desired to recall to you rather rapidly just what may be the dependence to be placed upon roentgen ray examination in malignancy from the diagnostic standpoint. There is much that will be familiar to us all and there is no pretense that any new matter is offered. It is merely hoped that the emphasis given the aid which can be given by this agent in the diagnosis of malignancy will help us in our study of this important problem. It is also to be hoped that such a review of roentgen ray diagnostic possibilities will help us to be more

alert in all our examinations where it is used and malignancy not expected.

The aid which we are to obtain from the roentgen ray in these cases is dependent upon the basic principle of all roentgen ray diagnosis, the variation of the findings in our films from the normal. With this principle in mind, we must realize how more important than ever it is that we make a careful comparison of the suspected part with our mental conception of the normal or with other radiographs of similar areas which we know demonstrate no pathology. Fortunately, within the past few years, there have become available various excellent atlases and monographs covering the normal radiographic anatomy of practically the entire body and it is no longer necessary to limit ourselves to those in foreign languages as there are now equally excellent works in English. The technical standard of these collections as regards the reproduction of the radiograph has been improved to such an extent, as well, as to make them extremely valuable. Works of reference such as these should more frequently form a part of the medical library of the physician with the ever-increasing numbers of small radiographic outfits which are being utilized by the profession. No set of atlases, however complete, can equal the mental picture of the film and the associated clinical case which we carry in our minds and add to constantly as we build up our mental library of normal and pathological radiographs.

The bony skeleton is the realm in which we find our most certain and easily determined diagnoses because it is here that we can as a rule better and more uniformly demonstrate the pathology with fewer of the technical difficulties which beset us, in the viscera, for example. Before considering the main types of malignancy to be encountered in bone we must give some attention to our method of study. The changes which we find in our films are comparatively simple, either bone production or destruction, and it is from the

recognition of these factors that we arrive at a diagnosis, just as we determine the existence of a fracture by the recognition of its departure from the normal, namely, a solution of continuity of the bone. In the bone tumor, we are also aided by various additional facts derived from the clinical study such as the age of the patient and the sex. Such facts as these lead us to suspect a tumor in the male pelvis to be a metastasis from the prostate and a tumor in a child to be sarcomatous rather than carcinomatous since carcinoma is rare in the young.

Given a bone tumor, we must proceed to an analysis of it in a somewhat orderly fashion. All tumors in bone are either primary or metastatic. So far as possible its origin, whether cortical or medullary, must be decided. This is not sufficient, however, to decide whether we are dealing with a carcinoma or sarcoma since sarcoma, being a connective tissue growth, may be either primary or secondary in the medullary canal and we must therefore continue with our analysis. Do we have bone production or destruction, is the cortex present or absent, does the growth infiltrate bone and soft tissue? Again we must consider the secondary factors of the age and sex of the patient as well as another feature, the actual site of the lesion. This latter may be of considerable aid since the metastatic carcinoma will be most likely found near the nutrient canal of the bone whereas the favored site for sarcoma is at the end of the bones.

The more important malignancies of bone which we encounter are carcinoma, hypernephroma and the various types of sarcoma. Carcinoma is metastatic in origin and therefore medullary, is a tumor of the latter half of life and shows us bone production within the tumor. It destroys the cortex and is distinctly of the invasive type. In the female, metastasis from the breast is of course most common; and in the male, carcinoma of the prostate is one of the most frequent primary sources of carcinomatous metastasis.

Hypernephroma is also medullary and very similar in appearance to carcinoma. It is usually found in mid-life.

Round cell sarcoma is medullary in origin, produces no bone, destroys the cortex and is invasive. It is a lesion of early life and its appearance is so like that of carcinoma that we must rely on indirect evidence in differential diagnosis. Spindle-cell sarcoma is less invasive, destroys the cortex and is usually medullary in origin. One feature which characterizes both periosteal and osteo-sarcoma is their tendency to produce bone. Periosteal sarcoma is cortical in origin and causes little destruction of the shaft and periosteum. The characteristic manner in which new bone is laid down in the soft tissues in small striae perpendicular to the shaft is an unmistakable feature of this tumor. Osteosarcoma also arises from the cortex and extends both within the bone and soft tissues. It is a bone producing tumor but unlike periosteal sarcoma there is extensive destruction of the shaft.

Differential diagnosis between malignancies of bone and benign tumors would be desirable but time forbids. A few words, however, as to one of the most frequent benign tumors which is to be confused can not be avoided. This is giant cell sarcoma which still seems to be frequently confused with true sarcoma. It is neither metastatic in origin nor does it metastasize. It does not destroy the cortex but expands it. It shows no signs of invasion and there is no new bone formation.

Passing now to the chest we find the lungs the most frequent site of malignancy and carcinoma the most usual type of tumor. We again have to deal with tumor masses and we again find difficult problems of differential diagnosis, further complicated by the need for differentiation from benign tumors, infections such as abscesses, or luetic lesions. Not only are the lungs to be considered but the chest wall, the pleura, mediastinum and sub-diaphragmatic area. Again, our problem is to know the normal and decide upon changes therefrom

with the most painstaking consideration of all factors concerned. At times we do meet with malignant metastases in the chest of such characteristic appearance that the diagnosis is unmistakable once it has been previously correctly recognized. Of this type is the familiar puff-ball appearance of the nodules of metastatic sarcoma. In such cases we are inclined to disregard the warning of one well known man, "Never make a diagnosis of a tumor because it looks like something seen before." Even in such outstanding cases the better procedure is to make as thorough a study and analysis as possible.

The gastro-intestinal tract is another field where the roentgen ray has been of great aid since the opaque meal has enabled its study. Here the field is rather narrowed to the one lesion, carcinoma, and our difficulties are often largely technical, the difficulty in obtaining a satisfactory radiographic demonstration of the lesion. Given our defect in the outline, our departure from the normal, our problem is very frequently solved and at best there is only the certain percentage of such early cases which need to be distinguished from an ulcer. In the gastro-intestinal tract, it is hardly necessary to recall, we may expect to find malignant lesions in esophagus, stomach and large intestine.

Malignant lesions are further to be demonstrated for the ear, nose and throat specialist in the various sinuses, for the urologist in his field, occasionally for the neurologist. In every field let us repeat at the risk of being tiresome that we must know the normal anatomy and recognize departures therefrom. We must analyze our radiographs as carefully as possible and make proper correlation of the radiographic findings with the clinical features of the case. We must not hide in our laboratory and see only our radiograph but if the referring physician does not take us into his confidence and discuss the case with us, it is our duty to seek to be ourselves clinicians as well as radiologists, to demand our share in the general knowledge

of the patient. Too often is the attitude, or perhaps has been, that of keeping us so far as possible in the dark lest we may be prejudiced. Acquaint us with all possible facts of the case and when we are proven wrong give us that fact also.

DISCUSSION.

Dr. J. D. Rives (New Orleans): Dr. Bowie has treated such a wide subject that it is difficult to see the horizon from where I stand. He has ably summed up the advantages of the roentgen ray in diagnosis, so I shall confine myself to the dangers of it. The roentgen ray is valuable in the diagnosis of malignancy in direct proportion to the ability and experience of the man who is using it. No radiologist of wide experience, or even of wide reading, will attempt to read a film which is not clear and accurate in every detail, for if he does he will be led into error and the patient will pay the price of his mistake. The technic must be flawless, the best that modern machinery, which is extremely good machinery, makes possible. No bone plate should be read which does not show bone detail. It is futile and dangerous to read any other kind.

If we admit excellence of technic, we still have to choose the methods by which diagnosis can be arrived at. In the gastro-intestinal tract this consideration is very important. Malignant disease is uncommon in the small bowel, but is very common in the stomach and the large bowel. Radiographic study of the stomach is incomplete without fluoroscopy by a man of wide experience, a man thoroughly acquainted with the appearance of the normal organ, a man who can differentiate between spasm and organic pathology, a man who knows the methods of overcoming spasm. A study of the lower intestinal tract is of little value without a barium enema. An opaque meal by mouth does not solve the problem. I have known most distressing mistakes to occur when only that method was used. A hard bolus of feces gives all the evidence of an extensive defect, and only a barium enema will clarify the situation. A month ago I heard of an operation undertaken for supposed malignancy of the recto-sigmoid junction, the diagnosis being made by a radiologist of experience and a surgeon of experience, but only a spasm was present.

I do not undervalue the roentgen ray but I do insist on its proper use. In my opinion there is nothing more dangerous than what I may term the home type of radiologist, the man who has little experience and little equipment. For the diagnosis of fractures it may be good. For the diagnosis of gross chest pathology it may be good. But for the diagnosis of malignancy there is nothing to be said for it, nothing to be said for the

man who operates it, for it takes skill and experience to make that diagnosis so that the patient shall not suffer.

The radiologist must be part pathologist. In bone work the roentgen ray shows the bony structure quite as accurately as section does; only the cellular structure is missing. It is just as diagnostic as gross section. In chest pathology the same holds true. Any chest disease must be diagnosed or eliminated on the strength of the radiologic examination. Fluoroscopic examination is helpful here, but entirely insufficient, we need the record of the plate, and when we have it, we have the most complete record of disease we can obtain short of autopsy.

Finally, the roentgen ray should be used to indicate the prognosis of malignancy elsewhere. It is foolhardy to undertake the surgical treatment of prostatic malignancy, even when removal is clearly possible, without first examining the chest of the patient for metastasis. It is equally foolish to try to operate on bone tumors without this precaution. Do no radical surgery for malignancy of these and other types without being certain that your work will be of some value by the elimination of chest metastases with the aid of the roentgen ray.

Dr. A. Jerome Thomas (Shreveport): The science of radiology has made more progress in the past decade than any other branch of medicine. It had far to go because technical methods had to be developed and technicians trained to such work. It will continue to make progress but the big problem now is to develop the equipment to keep up with the scientific radiology. The scientific radiologist has practically outdistanced the present roentgen ray equipment. We need roentgen-ray tubes with smaller focal spots capable of carrying much higher load than the present roentgen ray tubes as constructed at this time, will carry. We need other improvements such as stabilizers that will function, and take care of the power line fluctuation of the electric current. When we get these things our results in radiographic productions will astonish you. I have in my own work had sufficient encouragements to make me believe that these things are going to happen. The Journal of the American Medical Association commented editorially on these things a few months ago. Just last week while examining a forearm for suspected arthritis with cartilaginous destruction using a special technic I have evolved I was able to demonstrate the bony and muscular structures and also visualize the brachial artery and its bifurcation at the elbow joint. I do not agree with the majority of radiologists that the acute osteomyelitis can not be demonstrated before destruction has occurred. I am certain that this lesion will be diagnosed in a much earlier

stage. One word of warning when giving roentgen ray therapy for malignant disease, be careful not to use it in the vicinity of the suprarenal capsules. If you do, you may destroy the functions of these glands. When they are destroyed the usual rule will be death within several months, and the chances are your patient will live longer with the intra-abdominal cancer if let alone.

BLOOD TRANSFUSION.*

SAMUEL E. FIELD, M. D.,

CENTREVILLE, MISS.

During the past six or eight years blood transfusion as a therapeutic measure has gained immensely in popularity and the number of ailments in which it is being used has markedly increased.

The perfection of the apparatus for the direct transfusion of unchanged blood has raised this procedure to a position where it should no longer be considered as a last desperate resort but as a therapeutic agent of great value. With a careful cross matching between the recipient and donor, unchanged blood may be infused with probably no more danger than the infusion of saline.

Blood transfusion has been used over a long period of time by surgeons in major crises, but it is not being used as much as it deserves, and especially is this true in medical cases.

The correct typing or matching of blood for a transfusion is, of course, most important. In our transfusions we have used the direct or cross matching method entirely. This method is relatively simple and can be mastered with very little effort and the expenditure of a moderate amount of time. We have not felt that it was necessary to group the donors used in our cases.

Transfusions are sometimes given after determining the compatibility of the donor's cells with the recipient's serum.

But we should not stop here. It is just as simple to continue the test and determine

*Read before the Section on Surgery at the Sixty-fourth Annual Session of the Mississippi State Medical Association, Jackson, May 13, 1931.

the compatibility of the donor's serum with the recipient's cells. If there is a choice of donors it is best to choose one whose cells and serum are compatible with the recipient. Some reactions may be prevented by performing both processes.

In addition to a careful determination of the compatibility of the blood, we should, wherever circumstances will permit, examine the donor's blood for malaria and lues. We have employed donors without first making these tests, and from whom we had simply a denial of blood stream infection, and so far we have had no complications. But if we persistently neglect that part of our examinations we will sooner or later transfuse infected blood. Occasionally, we all have cases on whom a transfusion must be done with as little delay as possible, and in such instances, I believe that these tests may be omitted. A malaria examination, "the Kahn test" or the Kline and Young test may all be completed within two hours, and with few exceptions, this short delay is immaterial.

Some observers advise the matching of white cells, but I do not believe this is necessary. Any reactions which may be attributed to them is mild and unimportant.

Even though one has a so-called universal donor for use at all times, we believe that direct matching should be done before the transfusion is given. Where more than one transfusion is to be given the same patient, direct typing should be done for each transfusion, even if the same donor is used, and occasionally this may be necessary. However, it is advisable to employ a different donor if possible. Reactions are less likely to occur and better results are obtained. We cannot expect to avoid reactions with every transfusion but all possible precautions should be taken to avoid them. It is obvious that a patient who has a chill, high fever, nausea or vomiting following a transfusion cannot derive the full benefit from the transfused blood.

The transfusion of unchanged blood is now almost universally accepted as the

best procedure. There are no contra-indications to the transfusion of whole blood. There are several contra-indications to the use of the citrate method. Most observers report a much higher percentage of reactions following the citrate method. Jamison states that a reaction may be expected in about forty per cent of cases. Brines reports a decrease from twenty-five per cent reactions using citrated blood to from two to four per cent in one hundred cases using unmodified blood.

In certain blood dyscrasias, the citrate method is, at least, theoretically, contra-indicated because of its effect on the action of the blood platelets in the donated blood and it almost completely destroys complement. Johns has reported a very definite drop in natural complement in blood withdrawn within an hour after transfusion of citrated blood. This may explain the failure of transfusion in septic cases when this method is used. In any condition in which the patient shows a tendency to bleed, citrate should not be used because it does increase the coagulation and bleeding time. Blood untreated by chemicals, not exposed to air, glassware, or stirring, should certainly be better able to function normally and less apt to produce reactions.

In all of our cases we have used the Scannell instrument for the transfusion of unmodified blood and found it most satisfactory. It is not an expensive instrument, requires very little care in keeping it clean, is practically fool-proof, and a trained team of assistants is not necessary. In a small percentage of cases where the donor or recipient have small invisible veins it will be necessary surgically to expose the vein to insure success. After using this instrument we have discarded entirely the citrate method and in transfusion in infants it is a perfect substitute for the syringe and canula method, recommended by Lindemann and others. By this method 400 to 600 cubic centimeters of blood may be given within six to twelve minutes.

The author believes that rapid transfusions are just as safe as the slow technic except in cases of acute cardio-valvular disease or acute infections of the lungs. More than the usual care should be taken with this type of case.

Fatal post-transfusion reactions are extremely rare. Brines reports .05 per cent in a series of 4000 cases. And in each fatal case there was a previous diagnosis of chronic nephritis. His cases died within four to eight days and all had definite symptoms of uremia.

Transfusion reactions vary greatly, from slight headache, backache, and slight fever; to chill, high fever, general malaise, convulsion, unconsciousness and all the symptoms of true anaphylactic shock. Sudden headache, and pain in the back occurring during the process of transfusion demands prompt cessation of the operation. In our cases we have noticed only two reactions. Both occurred within five minutes after the transfusion was completed. One was very mild and consisted of headache and slight pain in the back. All symptoms cleared up within three hours. In the second case, the reaction was severe, there was a definite convulsion, cyanosis, slow respiration, feeble pulse and unconsciousness. However, it was of short duration and within one hour all symptoms had disappeared and recovery was uneventful.

In both of these cases, as in all the others, the donor was chosen after compatibility was determined by cross matching. The cause of these reactions was not definitely determined. In the first case it may have been due to incompatibility of the white cells. The second case was a typical anaphylactic reaction, which implies some protein sensitization, but this reaction is not clearly understood.

Transfused blood may be expected to supply several different things. It increases the volume, raises the blood pressure and increases the oxygen and carbon dioxide carrying power of the blood. In certain

blood dyscrasias it decreases the coagulation time, and is invaluable in cases of purpura, hemorrhagic diseases of the newborn, or hemophilia. I recall two cases of hemorrhage in hemophiliacs following extraction of teeth, in which every known method for the local control of hemorrhage was used without success and it was controlled immediately with one transfusion. In acute hemorrhages following ruptured ectopic pregnancy, severe injuries, bleeding ulcers, transfusion is used with dramatic effect.

In pernicious anemia it is universally accepted. In secondary anemias resulting from chronic infections it is of undoubted value, it replaces lost blood and stimulates antibody formation. Two of our cases will illustrate this fact clearly. Both were cases of peri-renal abscesses in which drainage had been instituted without effect on the temperature and toxemia, that is both continued to run high fever and gradually grew worse. No other pathology could be found. Both were given whole blood transfusions and improvement was almost immediate, recovery was uneventful.

Many cases who are poor surgical risks may be rendered relatively safe for surgery by preoperative transfusions. This is particularly true in women who have had continuous uterine bleeding over a long period of time with resulting secondary anemia. The effect of transfusion in this type of case is little short of a miracle. Undoubtedly many lives have been saved by transfusion following major surgical procedures. Other conditions in which blood transfusion has been proven beneficial are, shock, carbon-monoxide poisoning, erysipelas, septicemia, premature and debilitated infants, acute intestinal intoxication and acidosis and in immuno-transfusions in bacteriemia and septicemia. There is still some controversy as to the value of transfusion in some of the conditions listed above, but it has been universally accepted in the majority of them.

In our clinic we have followed the policy, "when in doubt, transfuse", and up to the present time we have not had cause to regret it. Our transfusion operations are relatively small in number but the results obtained argues well for the continuation and more widespread use of the transfusion of whole blood as a therapeutic measure.

DISCUSSION.

Dr. G. Y. Gillespie, Jr. (New Orleans): Dr. Field has carried out the policy I believe in, and that is to have one method of transfusing blood, and if it proves satisfactory to you, by all means stick to that method.

It is my opinion that the transfusion of blood is a surgical procedure demanding the proper technic. It is sometimes difficult to determine when a transfusion should be done because in the introduction of the complex medium of blood lies the potentialities of marked clinical improvement or damage, and the procedure is no less dangerous when misused than efficacious when properly employed.

The choice of administration of blood lies in two methods. The citrate method is perhaps simpler and more quickly available to more surgeons, eliminating the necessity for hurry, and permitting an operation which hardly admits of total failure. On certain grounds whole blood transfusion would probably be preferred to modified blood transfusions; the latter involves greater possibilities than the former for the introduction of some undesirable foreign substance along with the blood used. When all is said and done there is no real evidence to sustain the argument that sodium citrate is harmful to the body economy either directly or indirectly. It is true that reactions following the use of citrated blood occur more frequently than following the use of whole blood, but many observers are inclined to lay the blame for the high percentage of these reactions to technic rather than to method. In most cases it actually makes little difference which technic one uses, and with certain exceptions, certainly the technic with which the surgeon is most familiar and does most expertly is the one to use. Success in the use of most of the ingenious instruments depends more upon the individual's preference, manual dexterity and past practice than upon any particular superiority in design.

Aside from the reaction due to faulty technic, we are always going to get reactions that we can not explain in the transfusion of blood. These blood transfusion reactions may be due to the disturbance of the colloid balance of the recipient's serum and the donor serum.

Dr. W. D. McCalip (Yazoo City): The transfusion of blood is of great therapeutic value when properly applied in certain cases. It goes without saying under ordinary circumstances those who propose to perform a blood transfusion should be themselves competent laboratory men or should avail themselves of the services of well trained laboratory consultants in respect to the preliminary typing or matching of the bloods which it is proposed to mix in order to make sure that they are compatible. The process of determining compatibility is not really a difficult thing and can be mastered with very little effort. It does not involve determination of the blood groups of the donor and of the recipient, but consists of a test of the agglutinative power of the recipient's serum upon the donor's red blood cells, and vice-versa. About one-third of the transfusions of unlike blood give reactions because of incompatibility, and about five per cent of such incompatibles prove fatal, or at least jeopardize the life of the patient.

The indications for transfusion are shock, hemorrhage, prolonged anemia, and so forth. A donor should be chosen who is healthy, free from any disease, especially diseases like syphilis, malaria, and so forth, whose plasma does not agglutinate the recipient's red blood cells, and whose cells are not agglutinated by the recipient's plasma. If an ideal donor can not be found, it is safer to use a donor whose plasma agglutinates the recipient's cells than one whose cells are agglutinated by the recipient's plasma.

Where matching cannot be done, as sometimes occurs in emergencies, immediate members of the family should first be obtained as you are not so likely to get the hemolyzing effect from members of the family as from others. As an illustration, only a short while ago in blood matching, six members of a family, consisting of mother, father, sister and aunts were matched to 100 per cent. The recipient's blood matched to 100 per cent with all six. In another case, out of nine matchings only one could be used—only one donor in nine who would match with the recipient.

Where you have to resort to a transfusion without a matching of blood, a test should be made by drawing two mm. of sodium citrate solution into a hypodermic syringe, then drawing eight or nine mm. of the donor's blood into the syringe, shaking thoroughly and injecting into the recipient's vein. If there is any incompatibility, within 15 minutes symptoms will show up in the form of respiratory dyspnea and rapid pulse.

Dr. H. R. Shands (Jackson): I feel that this paper brings to our attention a matter of great importance. No therapeutic agency has been de-

veloped in the last ten years of greater value than that of blood transfusions for the various indications in seriously sick people. My experience leads me to think that the citrate method is probably just as beneficial as the whole blood and generally is more simple of application. The citrate method is very largely used at both the Mayo Clinic and the University of Pennsylvania. The application of this method is so simple that it can be used by any well trained physician if he has access to a laboratory in which the blood can be properly typed. Improper typing of the blood is the cause of most unfavorable reactions. There is no better tonic for a weak and anemic patient, even though no acute emergency exists, than repeated blood transfusions.

Dr. A. G. Payne (Greenville): I favor the direct transfusion of blood. I do not think that any one that is not in the habit of dealing with veins, and things of that kind should undertake it—in fact, it is, in my opinion, a surgical procedure.

Now, then, as to blood stream infection as brought out by Dr. Field, there are a lot of kinds of blood stream infections that we can have. A blood culture will tell us with what type of infection we are dealing, we may then have an autogenous vaccine made, with which we may immunize the donor, and then give the patient a transfusion with the immunized blood.

There is one thing relative to the donor. We sometimes don't take into consideration that the donor is a very important person in this proceeding. I sometimes speak of taking the fear of God out of people and I think there is nothing better that we could do than to take the fear of God out of the donor. That can be done with a small dose of morphine preparatory to having this man undergo that proceeding, which, with him, is a great big something. Another thing, I recently saw a man—a donor, he was lying on a stretcher, and his trousers got too hot for him. I think we should be more considerate of the donor in those instances and put him in a quiescent state. How many times is it a fact that the donor becomes faint and his blood all goes to the inside, as it were, and we can't pump that blood out of the veins—we can't pull it out? I think that is a very important subject.

As to matching and typing: Of course, the typing can be done at any time, but it is conceivable, I think, that types may change, a man may be of the same type today, but do we know what type he is when we want to use him? I think it is a very important thing to match the bloods the same day we are going to make the blood transfusion.

Now, as to the reaction: Some men think that

a reaction after a blood transfusion is essential to the patient's good. Personally, I hate to see a reaction following a blood transfusion and I think if we can figure out any means at all by which we can limit to the very smallest degree or extent, the reaction, then we have done for that patient the thing we should do.

Now, as for the indications for a blood transfusion, some men think a gastro-intestinal hemorrhage is an indication. We don't know what is the causative factor of that hemorrhage, but we do feel the patient is going to succumb in this emergency unless a blood transfusion is done. That, of course, is a question, but being surgically minded in that respect, I always say do a blood transfusion where there has been a decided loss of blood in those cases.

Dr. A. E. Gordon (Jackson): I do not wish to get up and feel that I am a pessimist on the subject of blood transfusion but I do think it is somewhat overdone in surgery today. Blood transfusion has its uses and very definite uses and should be done in certain selected cases, but the matter of doing a blood transfusion as a cure-all is a very dangerous procedure. We have had frequently cases of blood stream infection where we do a blood transfusion early, and the patient is hurt in various points, and we should have done it later; we have cases where we do it late and should have done it early. This is particularly true in septicemia. It is my opinion that blood transfusion has very little use in septic cases, but we have used it extensively in sixteen years of surgical practice, and I have yet to say I have seen blood transfusion do good in septicemia.

As far as the method, I agree with the discussion here that probably the technic causes your reaction.

The citrated blood does not reduce your blood coagulation as we use pure sodium citrate in transfusing. We found it did not lower the coagulation of the blood. Why this was, I do not know. Another thing, your rubber tube, in your direct method, has a considerable amount of sulphur in it. We find this occurring not only in blood transfusion but in the intravenous administration of glucose drips. We always find as a substitute for blood transfusion an intravenous glucose solution works marvelously.

I simply rise, gentlemen, to say that, in my opinion, blood transfusion is not a cure-all and should not be used too extensively to make a grand stand play, but we should use it cautiously and know it has very definite limitations.

Dr. John F. Lucas (Greenville): It has been my opportunity to give something over five hundred transfusions in the past five years. Dr. Field says "When in doubt" we start thinking about

transfusion. If we are in doubt whether the patient needs a transfusion we do not hesitate to give it, and I think I have seen many patients that have been saved by this procedure.

In regard to the method, the first year or two I was there we used the citrate method and we had a good many reactions. During the past three years we have practically discarded the citrate method except in some cases of myocarditis, or in cases of old people where we do not feel blood should be given as rapidly as is done in the whole blood method. We have used the method as described by Dr. Field, the Scannell method, and we very seldom have any reactions at all now. I think as Dr. Shands has said that most reactions can be traced to the matching of the blood.

One case that I distinctly remember. The patient was as sick a man as I ever saw. We gave him something like thirteen transfusions. There were several times when this man appeared to be almost dead. He wasn't given up, we did not give up hope, but our reason told us that he wasn't going to live. However, by repeatedly stimulating this man with transfusions every three or four days when he would begin to sink, we pulled him through and he is a well man today.

Dr. Field (closing): I think possibly Dr. Shands misunderstood me in reference to blood platelets. I did not mean that citration destroys platelets. It is generally reported that there is some inhibition of the action of platelets. What I said was that in certain blood dyscrasias the citrate method is theoretically contra-indicated because of its effect on the action of the blood platelets in the donated blood and it almost completely destroys complement.

In reference to the direct method, I think it is a surgical procedure, but I do not think it is necessary to remove the patient to the operating room to give it. A great many of them, and perhaps a majority of them, can be done with a simple needle puncture without exposing the vein, and can be done at the bedside as easily as it can be done in the operating room. It is a little more complicated perhaps, than the citrate method, and the citrate can be done at any time away from the donor, but the procedure of direct transfusion with the instruments we have is certainly one thing that should lead us all to use more transfusions in many cases.

I don't agree with Dr. Gordon so far as saline and glucose for transfusion is concerned. If a patient needs transfusion there is nothing in the world that will take the place of it. Glucose is good; it is excellent to use it, but if the patient needs transfusion, I don't think there is anything that will take the place of it.

THE USE OF IODIN IN GOITER.*

E. R. NOBLES, M. D.,

ROSEDALE, MISS.

Under the leadership of many able students, the medical profession has passed through periods when the use of iodine in goiter has been praised as a specific, alternating with periods when it has been condemned as not only being useless, but distinctly harmful.

Its re-introduction as a solution of the goiter problem was placed on firmer ground immediately following the classical work of Marine and Kimball.

Although at the present time much misunderstanding and confusion still exist as to the best method of applying the knowledge gained by their experiment, and later by others of a similar kind, the principles of goiter prevention with iodine now rest upon a scientifically sound basis.

There is little doubt, also, that within certain limitations, iodine has curative value in some well-defined clinical types of simple goiter, and in 1922 Plummer contributed much to our knowledge by showing that a transient improvement could be produced in toxic goiters by large doses of this drug.

The publicity given to it in recent years as a preventive measure, its use in massive doses as a pre-operative treatment in toxic goiters, its general use as a curative agent practiced off and on for a century, and the fact that it has been used freely in many other ills of man, has undoubtedly brought about a certain fearlessness of the drug.

In this country it is a common observation that with every good thing in medicine we must have certain associated and uncontrollable features that are bad. These usually take form in propaganda and advertisements in the press and popular magazines of indiscreet commercial agencies, seeking to make stock of the new

*Read before the Section on Medicine at the Sixty-fourth Annual Session of the Mississippi State Medical Association, Jackson, May 12, 1931.

discovery in order to convert it into real profit to themselves.

The relation of iodine to goiter has not escaped this in recent years, with the result that in this field of therapy we are about to be over-iodized.

This situation offers an extreme temptation not only to that large part of the public who indulge in self-medication, but many physicians as well are caught in the snare of trying a little iodine!

I have seen women of presumptive intelligence who had taken Lugol's solution over a prolonged period, because they had either read or heard that it was good for goiter, and hoped thereby to avoid having one; and others who had been taking it for an equal length of time on a physician's prescription or advice.

We are undoubtedly passing through a transitional period out of which it is to be hoped there will arise certain definite rules that will henceforth govern the indications for, and the contra-indications to, the use of the drug.

A discussion of the subject requires a simple classification based upon what is definitely known about the gland. It should be stated before offering this, that the various degenerative changes such as atrophies, hemorrhages or cyst formations, are recognized as secondary metamorphoses and should be distinctly separated from the primary disease.

The classification generally accepted for clinical work is as follows: First, simple, endemic or colloid goiter; second, adenomatous goiter; and third, toxic goiter, which includes Grave's disease and the toxic adenoma.

We know that simple goiter develops most frequently during (1) fetal life, (2) at puberty, (3) during pregnancy and lactation, and (4) at the menopause. It may be seen also to develop during the course of certain pathological conditions such as long febrile disease, malnutrition, chronic infections, or as the result of abnormal diets.

While it is true that several etiological factors of equal importance are worthy of consideration, it is undoubtedly primarily a deficiency disease.

Marine's conception is that it is a compensatory, or work hypertrophy, arising in the course of nutritional disturbances, which disturbances may be of a vitamin nature immediately depending upon either a relative or an absolute deficiency of iodine, leaving the essential or ultimate causes still to be determined.

Although it is not known just what minimum amount of iodine is needed for the proper functioning of the gland, we do know that the amount contained in it normally does not exceed 25 milligrams, or about that which is represented in three minims of Lugol's solution. It is generally accepted that 1 mgm. of iodine a day, and possibly less, will keep the gland from enlarging. We know, also, that it holds onto its iodine with a tenacity unexcelled by any other tissue in the body, and that so small an amount as this may be exerted upon the metabolic rate in some individuals for approximately 70 days.

The greatest usefulness of iodine in goiter is, and undoubtedly will continue to be, in the field of prevention, and the treatment of one which has already developed represents a separate and distinct use of the drug.

TREATMENT OF SIMPLE GOITER.

In adolescent goiter, that is the soft, smooth, bilateral enlargement of the gland occurring at or about the time of puberty, and with no other symptoms, the administration of iodine is definitely beneficial. Under its influence the swelling often subsides in a very short time, but because spontaneous regression frequently occurs, it is quite impossible always to be sure that the drug has been responsible for the improvement.

The treatment in these cases is harmless if only small quantities of iodine are given, for larger amounts will tend to increase rather than decrease the size of the gland

by stimulating an over-production of colloid.

The accepted treatment is 2 minims of Lugol's solution daily for 30 days, alternating with a free interval for 30 days, and after three such courses of treatment further medication should be discontinued.

In the young adult, between the ages of 16 and 25 years, with a smooth, soft, colloid goiter, the results to be expected from any form of treatment are very problematic, though some very remarkable improvements have been observed from iodine medication.

The drug should be given in a manner exactly similar to that proposed for the earlier type, though much better results in the majority of cases are seen when this treatment is combined with thyroid extract.

The extract should be given in doses of one, or not over two, grains daily for a period of one month. During this time its effect should be carefully observed each week, and should any evidence of thyroid activity manifest itself by changes in the pulse rate, loss of body weight, leg weakness, the drug should promptly be discontinued.

After a rest period of two weeks, small doses of iodine, not over the equivalent of 2 minims of Lugol's solution, should be given daily for two weeks. This treatment should be repeated three times in a year, and for maximum improvement, at least a year is required.

THE ADENOMATOUS GOITER WITHOUT HYPERTHYROIDISM.

The other representative of this group of simple goiters is the slowly developing adenomatous type. These usually begin to show themselves as a definite mass, during the second decade of life.

It is believed that the simple colloid goiter is the forerunner of these and the tumors or nodules are in most cases the end result of the rapid changes constantly taking place in the hypertrophied gland.

They grow slowly, generally in the depths of a colloid gland, and they usually

exist for many years before they become palpable to the physician or patient.

It is explained that the presence of these nodules is the reason a colloid goiter has not reverted to normal size by the time the patient has reached the age of twenty-five. After this age it may be assumed that these simple goiters contain adenomatous tissue, the ratio of which is on the increase so that in a few years the adenomatous element dominates the picture.

In other words, the simple goiter seen at the age of twenty-five is the adenomatous goiter at age forty-five.

The long history of the development of these goiters, some take their origin in the changes of the gland in fetal life, is an added reason for careful palpation of a colloid gland for evidence of these masses before any treatment with iodine is instituted.

It is conceded that minute doses of iodine, begun early, will somewhat retard their growth, but it is also believed that many of these would remain permanently latent and symptomless if it were not for the misuse of iodine.

Unfortunately if these goiters are quickened into activity under the influence of this drug, a withdrawal of the drug does not stop the process.

The promiscuous treatment of these patients with iodine, and often in addition the consumption by them of quantities of iodized salt in its original strength, is responsible for much of the iodine furor we have observed in recent years. It was noticed that soon after the use of iodized salt had become general, and much careless propaganda concerning the value of iodine in goiter had been disseminated, that many of the larger goiter clinics of the country were reporting more patients, especially among men, with toxic adenomatous goiters, than in previous corresponding periods.

It was strongly counseled from these sources that the generalized use of iodine in any form by adults was dangerous and

should be discontinued until a minimum dosage could be established that would prevent simple goiter and also be harmless to those hypersensitive adults with nodular goiters.

Investigators are still hoping for a solution of this problem on that basis. The iodine content of commercial salt was cut 1/20 several years ago; incidentally there has been a corresponding decrease in the number of these cases, yet our iodized salt is still twice as strong as that generally used in Switzerland.

A safe rule for general use in dealing with goiter patients is not to administer iodine as a form of medical treatment to any patients with a simple goiter after age twenty-five.

No known medicine will benefit cases of adenomatous goiter, and the tendency of the disease is to produce a low grade toxemia, which manifests itself in disturbances characteristic of hyperthyroidism, and ultimately ends in degenerative changes in the heart, kidneys and liver. It is therefore important to consider their surgical removal after age twenty-five, or before if their character is definitely known.

TOXIC GOITERS.

In approaching the subject of the use of iodine in Grave's disease, it should be stated that concerning its etiology almost nothing is known, but it has been definitely established that therapeutic measures directed at the thyroid will neither prevent nor permanently control the disease.

The thyroid in these cases is often very slightly enlarged. It is also known that there is always a marked diminution and in some cases a total absence of iodine in the gland. The symptoms, unlike those of toxic adenoma, begin acutely and abruptly, the course is reckoned in months rather than in years, and deceptive remissions are one of its common characteristics.

The most efficacious method of management, in these cases, is one which combines both medical and surgical measures.

Either one, alone, is inadequate in the majority of cases.

The internist should have his supervision up to the time of operation and direct the post-operative care. Undoubtedly, the greatest recent advance in the treatment of hyperthyroidism has come from the administration of iodine. We have no scientific explanation as to how iodine produces such striking improvement for a short time in any of these cases, but the two most important hypotheses are those of Marine and Plummer. Marine suggests that by causing a rapid accumulation of colloid in the alveolar spaces of the gland there is produced a pressure retention of the secretion until the cells accommodate themselves to function under increased tension. Plummer's theory is that in all probability the quality of the secretion is changed in this disease and that the iodine in large doses puts the gland at rest and allows it to complete its normal secretion.

It is not to be denied, however, that some mild cases of Grave's disease seen in childhood undergo rapid and permanent improvement under the influence of very small doses of iodine, but its physiologic action in these cases also is entirely unknown. As a preoperative measure Lugol's solution should preferably be given after the patient has been sent to the hospital. The dose range is from five to twenty minims three times a day, depending on the severity of the symptoms and the height of the metabolic rate, although as high as a hundred minims daily may be given to control the mental or gastrointestinal crisis.

The preoperative treatment with iodine, together with other appropriate measures, is carried out for about two weeks, but if, at the end of this period, the basal metabolic rate, which should always be the control, has not fallen below forty, the same procedure should be continued for another week.

Iodine should be given the day of the

operation, followed by reduced doses for two or three months, to prevent, first, the post-operate storm which is often severe, and sometimes fatal, and, second, the recurrences which are troublesome. Larger doses than this have been recommended, some even have urged heavy daily doses of sodium iodide intravenously to produce a remission in that increasingly large group of cases who have unfortunately already had iodine, but it should be borne in mind, that in spite of much to the contrary, a second artificial remission of the disease is frequently impossible to obtain with any amount of iodine.

The miraculous improvement seen in Grave's disease under the influence of this drug is not so evident in toxic adenomata cases, though the same post-operative treatment is helpful, and we often find that the tachycardia, especially, does not improve in spite of this. It is in these cases that the difficulties are greatest, for at least half of them show severe myocardial damage.

Hertzler, who has practiced in the same community for over a quarter of a century, has stated that practically all toxic goiter cases, not operated upon, died a cardiac death. There have been investigations which have attempted to show that smaller doses of iodine as a form of medical treatment would control hyperthyroidism throughout the course of the disease. Patients have been kept under observation for as long as three years, being given as little as 1 minim of Lugol's solution daily, but the results have been indifferent.

The results of these experiments, however, force us to conclude with one observer, that we have no justification for treating any case of hyperthyroidism by methods which take 18 months or longer to complete, when surgery will effect a cure in 18 days or less.

Especially is this tenable in view of the factor of slow intoxication, tending to permanently cripple the heart, kidneys and liver.

CONCLUSION.

In conclusion, I wish to say that I have attempted to touch only upon some of the most important features of iodine therapy in goiter. I hope others will be brought out in the discussion to follow.

My chief aim and intent have been to present for your consideration as briefly as possible, the indications for, and the contra-indications to the use of the drug.

I have desired to warn against the promiscuous use of iodine in patients presenting themselves with goiter, to encourage more careful palpation for evidences of nodules, and to urge that for medical treatment the physiologic dose of Lugol's solution, and other iodine preparations, proportionately is two minims, daily, instead of 30, and that in all probability thyroid extract is the remedy to be preferred.

I admit that many keen students of the disease doubt if iodine is really harmful in any of these cases, but no one has yet arisen to proclaim that it can possibly be beneficial as a form of treatment in any but the simple type.

Iodine is undoubtedly harmful in elderly patients with adenomatous goiters, and it should be withheld from any patient past twenty-five as a form of medical treatment. The notable exceptions are the few simple physiologic goiters seen after this period and generally when the factor which caused these is corrected, no iodine is required.

DISCUSSION.

Dr. Whitman Rowland (Memphis, Tenn.): My personal experience, with the use of iodine in goitre, is confined to pre-operative and post-operative use of it. On the whole we have followed the suggestions of men such as Crile, Lahey and others.

With reference to iodine used as a curative agent. We do not believe it has any curative value except in the so called endemic goitre and then only in cases of very young age. Iodine is certainly a most beneficial agent in the prevention of goitre. I said a while ago my experience was confined to the use of iodine in the pre-operative and post-operative cases. We use it pre-operatively in the toxic adenoma and in Grave's disease. A great many of our cases, sent to the

hospital, have been thoroughly iodinated before arriving. This makes it very difficult for the attending surgeon to exercise judgment as to the advisability of immediate operation. We have had to send some of our patients home for a month, instructing them to leave off the iodine and return in one month for further observation. This has been necessary because upon their arrival they were so thoroughly iodinated we could not estimate their status of toxicity.

The best effects of iodine come in about two weeks. We give ten to fifteen minims, three times a day. The clinical improvement in the patient is carefully watched. There may not be a decrease of pulse rate but there is a definite decrease in the vascularity of the gland and the appearance has changed from one of anxiety and uncertainty to one of comparative well-being. At this stage we estimate the metabolic rate. If there has been an appreciable fall the patient is not exceedingly nervous and there has been a definite decrease in vascularity of the gland we feel that he is ready for operation. On the other hand if these conditions have not been met, we discontinue the iodine for a week or ten days and then begin the regime again. For some six weeks, following the operation, we use the iodine, in very small doses.

Fortunately we have not had many post-operative thyroid crises. I was told, however, by one of the associate surgeons in the Clinic, just before I left, that a most interesting post-operative thyroid crisis had yielded almost magically to an intravenous injection of Mirion, which is a preparation of iodine.

In conclusion I should like to stress again the important point that Dr. Nobles brought out, namely, that iodine has its limitations and its greatest factor of usefulness is in the prevention of goitre, and as a preoperative measure. The only indication for treatment, with hope of cure, is in the so called endemic colloid goitre, and then it is valuable only in the very young.

Dr. A. G. Payne (Greenville): There are certain sections of North America, and in Switzerland, and other foreign countries, where they have to make use of preventive measures just the same against goiter as we do in this country against malaria and hook-worm. Therefore, their problems are different from what our problems are. If we go to the Great Lakes, and in the Northwest, and in Switzerland, where so many people, so many children in their early age, if they haven't been given iodine or iodized salt, why, they would be in the same condition that the people would be in this country if we were to quit screening and quit draining our delta lands. In Switzerland, during the last few years, the incidence of operative interference for goiter has been reduced 75

per cent. That is on the same basis that we in this country reduced the incidence of hook-worm disease and malaria.

This subject of goiter is such a broad one that in a discussion of two minutes it would be impossible to other than just touch on some of the high points.

Dr. Nobles spoke of iodine in colloid goiter, and what a colloid goiter at about 25 years of age will be at 40 years—what this patient and see what that patient will develop at 35 or 40 years. Then is the time, if we carefully palpate the gland we will begin to find evidence of nodules.

I was struck in reading the program of the recent meeting of the American Society for the Study of Goiter, in which they had two papers, as I remember, on malignant conditions of the thyroid gland. Those are the cases that have been neglected, have been passed up by giving them iodine. I should say, not only from the patient's stand point, but from the surgeon's stand point, that the time to administer iodine to one with an adenomatous goiter or any condition of thyrotoxicosis, that the patient should be on the way to the surgeon or on the way to the hospital before the beginning of the administration of iodine. I have seen some remarkable conditions along that line. A couple of years ago I had a patient that was sent to me by a nearby physician for diagnosis, or to corroborate his diagnosis of thyrotoxicosis. I sent her back home and asked him to iodize her for awhile. In ten days she went to him and said, "Doctor, I am feeling so well I don't need any operation." He said, "You had better get the surgeon at once." If we will take that point we will have done a great deal towards the well being of those patients.

Dr. C. W. Patterson (Rosedale): The essayist has brought to us a subject not only great in its importance but grave in its importance. I say great because I think there are many cases where iodine is indispensable in the treatment of goiter, grave because in many cases, where there is advertised to the public a drug, a drug that is of so powerful effect, in magazines, such as "Health", and other publications, and spread all over the country,—for instance there would be a picture of a beautiful lady and say underneath, "Take iodine," or "Use iodized salt,"—there is a possibility of real harm. I think the public should be taught the danger of iodine, and I think the different sections of the country should be pointed out and the sale of iodized salt only in the proportions needed in those districts be permitted. I believe the medical profession should take a stand, and this, I believe, is the opportunity for us to show the general public what is best and what is not best. I thank you.

Dr. Nobles (closing): There is one point I would like to bring out. Before iodine is used a definite diagnosis should be made. First, is it toxic or non-toxic? Is it a physiological goiter, so called, or is it a simple colloid goiter? Is it an adenomatous goiter or is it a case of exophthalmic goiter? Unless this is done there is danger and confusion about the use of the drug.

Iodine in large doses, 10 or 15 minims of Lugol's solution three times a day or other iodine preparation, proportionately, is a toxic dose except as a preoperative treatment.

Iodine is indicated as a form of treatment only in the case of simple goiters seen before the age of 25 years and then in physiologic doses. It is never indicated in toxic goiter except as preoperative treatment with the possible exception of a few selected cases in children.

PYELONEPHRITIS OCCURRING IN PREGNANCY.*

W. A. REED, M. D.,

NEW ORLEANS.

Pyelonephritis complicating pregnancy, or "pyelitis of pregnancy," as it is commonly called, is identically the same as that occurring in any individual at any time of life. There are however a number of etiological factors that are present in pyelonephritis during pregnancy that are absent in other types of cases.

Pyelonephritis occurs as a complication in about 5 per cent of all cases of pregnancy. It was first described by Pierre R. Rayer in 1840 and brought to the attention of the medical profession by Relaub of the Congress of French Surgeons in 1893. Primiparas are more frequently affected than multiparas, and it is generally conceded that it occurs more often during the fifth to seventh month of pregnancy, at which time there is a lowering of the bodily resistance, as indicated by the opsonic index, although in a recent study of the subject by Kretschmer, 16 of the 25 reported cases occurred during the third and fourth month.

ETIOLOGY.

Regarding the etiology of pyelonephritis during pregnancy various factors must be

taken into consideration. Modern civilization with its many social and economical changes undoubtedly plays an important part. During the five years of my life that were spent attending an extensive practice among the natives and Indians of Spanish Honduras, not a single case was observed. Pregnancy and childbirth there seems to be unusually free from the frequent complications that we are accustomed to see. All of which is undoubtedly the result of their outdoor mode of living, their freedom of intestinal stagnation and their increased muscular development which tends to prevent ptosis, torsion and all other form of renal displacement.

Pugh, in a review of a large number of cases in 1927, was able to obtain the history of renal infection in childhood in a large per cent of the cases and it is not assuming too much to state that in many of these the infection that had started in childhood had persisted in a mild form up to the time that pregnancy occurred.

Hill and Shaw, in an examination of catheterized specimens of urine of a large group of normal women, found bacteria in 26 per cent of them, while Alberg states that he found bacteria in catheterized specimens of 15 per cent of his pregnant cases who were apparently otherwise normal.

It is generally conceded that there are a number of different routes by which bacteria are able to arrive at and infect the kidney in pyelonephritis. Wedal and Bernard were among the first to demonstrate conclusively that the infection could and frequently does reach the kidney by way of the blood stream. They arrived at this conclusion by the agglutination of co'on bacilli that were obtained both from the blood stream and the urine in a large series of cases. Ahlbeck, Fellis, Koch and others were the originators of this belief that the normal kidney possesses the power of excreting bacteria without its being impaired or in any way damaged by the excretion of them. More recent studies,

*Read before the Orleans Parish Medical Society, March 9, 1931.

however, by Helmholtz has shown that bacteria are excreted into the urine by the kidney only after some pathological change is present in the kidney parenchyma. Furthermore, he has shown that, although the renal parenchyma possesses a very high degree of immunity, it does not possess a reticulo-endothelial system, such as the spleen and liver, to arrest the passage of organisms that try to enter. Whenever the kidney receives its infection by way of the hematogenous route the infecting foci are unusually to be found in the skin, particularly from boils, the teeth, tonsils, and at times urethral and vaginal infections.

Perhaps the most favorable avenue of infection in pyelonephritis during pregnancy is by way of the urinary tract itself. It is now well recognized and accepted that after the fourth or fifth week of pregnancy there occurs a number of anatomical changes in the lower urinary tract that markedly tend to bring about an infection of one or both kidneys. Careful study by Hofbauer, Curtis and many others have proven that shortly after pregnancy occurs, there develops an hypertrophy and hyperplasia of the bladder muscles, particularly in the region of the trigone, as well as of the internal bladder sphincter, the sphincter muscles of the ureters and the peri-ureteral sheaths which is in every way similar to the muscular changes that occur in the uterus. As one would expect, this results in a residual bladder urine, and promptly thereafter dilatation, often to a marked degree, of one or both ureters and kidney pelves. This of course permits a free reflux of urine from the bladder up the ureters to the kidneys. While Goldsmith has found that a urinary reflux is present in a small percentage of apparently normal individuals, it exists in the great majority of women during pregnancy. Kretschmer and Heaney found the ureters and kidney pelves dilated in 80 per cent of their cases. The right ureter and kidney pelvis is more frequently involved than the left. Harris and Bugbee in their cases found the right side dilated in from 75 to

100 per cent, while the left side showed dilatation in from 66 to 77 per cent. In patients having a chronic cystitis and pericystitis there is also a loss of the sphincteric control of the ureters, due to the existing inflammatory changes, with a result that in them a urinary reflux also exists. The same condition is found in patients in whom the nerve supply of the bladder is altered because of the presence of a spina bifida or lesions of the central nervous system and cord. Finally, it is not unusual to encounter a residual urine and consequent urinary reflux in patients suffering from urethral strictures and cystoceles of large size. Therefore it is not surprising that once infection exists in the bladder, extension of the kidneys so readily occurs.

The next most favorable avenue by which an infection is transported to the kidneys is by way of the lymphatics. Francke in 1913 stated for the first time his experimental proof that there is a connection between the lymphatics of the colon and the lymphatic supply of the capsule of the right kidney. Later on Stahr proved that these in turn communicate with the lymphatics of the parenchyma and the pelvis of the kidney. Post-mortem studies by Hofbauer of the bowel of women dying in pregnancy demonstrated the fact that there is an edema and loosening of the submucosa thereby permitting a more easy escape of bacteria from the bowel into the lymphatic and circulatory system. Arnold states that in a large percentage of pregnant women there is a considerable deficiency of gastric juice thereby resulting in an increase in the bacterial flora of the bowel.

Earlier experimentation led one to believe that infections in the lower urinary tract and pelvis were unable to reach the kidney by way of the lymphatics because the anatomists of that time stated that the lymphatic supply of the ureter was segmental and therefore not continuous. However, the more recent work of Eusendrath and Rolnick as well as the detailed work of Bauereisen almost conclusively

show that such is not the case and that there is a definite and continuous lymphatic route from the external genitalia and female pelvis directly to the lymphatics of the kidney along the peri-ureteral sheath. The proof of this is apparently borne out by the fact that many renal infections rapidly improve or clear up following the removal of some focus in the pelvis or in the region of the lower urinary tract.

It was believed by the earlier investigators of pyelonephritis occurring during pregnancy that the predominating factor in its production was the pressure upon the ureter by the fetal head and the usual dextro-position of the uterus. One might easily believe this to be true because of the rapid relief of symptoms that occurs in many cases following there being placed in bed with the foot of the bed elevated and thereby allowing the upward ascent of the enlarged uterus out of the bony pelvis in which position a certain amount of pressure upon the ureters is reasonably to be expected. However, Franz and many others feel that were it entirely a problem of a pressure upon the ureters pyelonephritis would occur much more frequently during the last months of pregnancy, at which time the uterus reaches its maximum size.

BACTERIOLOGY.

A survey of the many different bacteria that serve as invaders in pyelonephritis shows that the colon bacillus is present in from 60 per cent to 70 per cent of all types of cases. Bitter and Gundel have isolated 72 different strains of colon bacilli, the majority of which are non-hemolyzing, although a few of them are of the hemolyzing type. It is the latter type that cause the fulminating cases of pyelonephritis which so frequently result in a rapid destruction of the entire kidney and at times death. Some of these many strains of colon bacilli grow best in an alkaline medium while others prefer an acid one. And it is undoubtedly due to this fact that we see beneficial results following the use of alkalis in some cases, while in others an acid medication is required.

Next in the rank of frequency to the colon bacillus as an invader comes the staphylococcus, the albus more often than the aureus. Here, too, we find non-hemolyzing type, which, fortunately, is the most common, as well as hemolyzing type. As a rule in staphylococcal infections we also find the colon bacillus present, and which of the two is the primary invader cannot always be stated.

The third, but rather uncommonly found organism that occurs in pyelonephritis, is the streptococcus, which like the other may also be hemolyzing or non-hemolyzing in type. Bumpus and Meisser have been able to produce definite kidney lesions by the intravenous injection of the non-hemolyzing form of *Streptococcus viridans* removed from the cavities of the infected teeth.

Finally, cases of pyelonephritis produced by the typhoid bacillus the gonococcus and *Bacillus proteus* are occasionally seen, although they are quite rare compared to the number produced by the previously mentioned organisms.

PATHOLOGY.

The pathological picture in pyelonephritis depends upon whether it is acute or chronic, as well as upon the type of infecting organism. It may be so mild as to produce so little change in the kidney as to be entirely symptomless, other than the production of an occasional shower of pus cells in the urine. On the other hand, it may be so severe as to result in the early formation of hemorrhagic emboli in both the walls of the pelvis and renal parenchyma with toxic necrosis and liquifaction of the entire kidney. If the infection is stopped before extensive damage has been done the destroyed renal tissue is replaced with fat and fibrous scar leaving an organ whose function remains more or less impaired during the balance of the life of the individual.

While most cases apparently begin out of a clear sky, so to speak, a careful history will usually elicit a number of symptoms that point to the presence of a renal infection, even before the onset of the acute

symptoms. Geisinger obtained a history of abnormal bladder disturbances in 86 per cent of his cases. In Kretschmer's cases a urinary frequency occurred in 66 per cent, burning on urination in 77 per cent, and painful urination in 30 per cent. As a rule, the onset of acute symptoms is associated with pain in the affected kidney region, although such is not always the case.

TREATMENT.

The treatment of pyelonephritis occurring in pregnancy is much the same as the treatment of any other type of the same disease.

Rest in bed is of course imperative and preferably with the foot of the bed elevated from eight to twelve inches. While most of us believe that fluids in large quantities aid in the elimination of bacteria, the recent work of Helmholtz would have us believe that this is not true. However, until this statement can be substantiated, my own inclination is to continue the use of large quantities of fluids except where it is desired to obtain as much as possible a concentration of whatever drug that is being given as a urinary antiseptic. Of the many drugs used in the treatment, hexamethylenamin is still the one of choice by most clinicians and is usually combined with an acidifier, although it is now believed that it exerts some action even in alkaline urine. Care, however, must be exercised that the hydrogen ion concentration on the acid side is not raised so high as to result in damage to the kidney. Where gastric disturbances prevent its oral use it may be given intravenously with excellent results and without systemic reaction.

Since certain types of colon bacilli are inhibited in their growth by an alkaline medium the administration of alkalis such as sodium citrate or potassium citrate is usually very efficacious especially when used alternately with hexamethylenamin. Much less caution is required in the use of alkalis because the limit of hydrogen ion concentration to the point of producing renal irritation is twice as high on the alkaline side as it is on the acid side.

Glucose administered intravenously, by hypodermoclysis or proctoclysis, is particularly beneficial and not infrequently a life saver in the treatment of pyelonephritis occurring in pregnancy and should be used early and often if the case is at all severe.

Pyridium at times acts quite well if the infection is produced by one of the staphylococcus group, although it seems to have little or no action where the colon bacillus is the invading organism. Hexylresorcinol in my experience has also produced little or no beneficial results. Acriflavin by mouth is used by many clinicians and at times apparently acts quite well.

Of the various drugs that have been used intravenously in the treatment of pyelonephritis mercurochrome has undoubtedly been tried more than all the others. My own experience, which has been a considerable one, is that, while an occasional brilliant result is achieved, the great majority of patients not only fail to improve, but seem to be made worse by the frequent and often severe general reactions that occurs. In some of the cases definite hepatic as well as further renal damage followed its use.

Where careful nursing and the usual medicinal measures fail to bring about an improvement, treatment of the infection by cystoscopy and catheterization of the ureters, with or without lavage of the kidney pelvis, should be instituted. As a rule, this results in immediate relief of the symptoms and a rapid diminution of the infection. When the infection is particularly severe and the pelvic stasis marked, indwelling catheters left in the ureters for long or short periods of time may serve to bring about the desired result, and while it is quite true that the presence of a catheter in the ureter may at times bring about sufficient uterine contractions to terminate the pregnancy, the benefit derived from its use is quite sufficient to offset the risk. My own belief, however, in this matter is that extremely large catheters left in the ureters for weeks at a time, as practiced by some urologists, is not

only unnecessary but productive of severe and lasting injury to the ureter. Inasmuch as there exists a cystitis of more or less degree in these patients as well as a constant reflux of infected urine up the ureters, local treatment to the bladder by means of irrigations or instillations is always indicated during the entire course of the treatment. Careful attention to the intestinal tract of course must not be forgotten, as well as the elimination of all possible foci of infection that can be attended to at that time.

Most all patients promptly improve under these therapeutics measures and go on to full term and deliver normally. However, it occasionally becomes necessary to bring about a premature delivery to avoid irreparable damage to the kidneys or to save the life of the patient. In my own opinion a living child rarely compensates for marked renal destruction and permanent invalidism except under exceptional circumstances.

Finally, one must not forget that, although all the acute symptoms of the pyelonephritis have subsided, the affected kidney or kidneys continue to harbor the infection in a mild form up to the time of delivery, and many of them for months and even years afterwards only to have it flare up again following a period of lowered vitality or during the next pregnancy. A follow up of these cases has shown that the dilatation of the ureters and kidney pelves that existed during the term of pregnancy subsides in from a few months to at most a year.

CONCLUSION.

It does not seem over exacting to suggest that all cases of pyelonephritis occurring in pregnancy be carefully examined urologically on at least two different occasions during the year following the delivery of the child to be assured that no vestige of the infection remains.

And finally permit me to also suggest that it may be possible to avoid serious and often dangerous complications by the rou-

tine administration of urinary antiseptics and alkaline drugs for periods of ten days out of each month during the entire term of pregnancy.

DISCUSSION.

Dr. H. W. E. Walther (New Orleans): A very interesting piece of clinical investigation was reported in 1929 by the department of urology at the Montreal General Hospital where 78 pregnant women were subjected to radiography. In only 4 of these cases did they find any urinary infection—1 in 20, or 5 per cent. It was quite a bold thing to take 78 pregnant women and pyelograph their kidneys.

In this study, they found the right ureter dilated in 30; hydronephrosis on the right side in 90 per cent and on the left in 54 per cent. Right hydronephrosis is, therefore, practically constant through pregnancy. The left side is also frequently involved. Bilateral upper tract dilatation is commonly observed. According to this study, multiparous women show dilatation of the upper tract, beginning in the second month, and reaching the maximum in the sixth month.

Hirst, from the University of Pennsylvania Hospital, also in 1929, reported 97 obstetrical patients whom he had studied cystoscopically. He found ureteral obstruction in only 4 cases, twice due to calculus. Hirst believes these infections due to intermitten vasodilation around the ureter and chronic passive congestion in this region.

I have always felt that the title selected by Dr. Reed was the one to use: "Pyelonephritis Complicating Pregnancy." I feel that many of these women have upper urinary infections a long time before pregnancy and that they just seem to give trouble at that time. These women are brought to us with high fever—105° to 106° and even 107° F. temperature. We have had any number of cases at the Baptist Hospital brought in with such temperatures. As Dr. Reed can bear out in his service at Touro, results are almost instantaneous, temperatures of 105° to 106° drop in an hour after cystoscopy, with relief of symptoms. It is quite a happy turn in women who have been suffering for many days without relief, especially those from out of the city. The instantaneous relief of the indwelling catheter is of great importance. I quite agree with Dr. Reed the largest catheter is not needed. No. 7 or 9 will give good results. These catheters need not be left in for two weeks. That is decidedly bad. Six hours to 24 hours is enough. Kidneys are lavaged when catheter is in place. I believe in the use of antiseptics locally such as silver nitrate, mercurochrome and acriflavine. I cannot at all agree with Dr. Reed in his minimizing the value of pyridium. It must be used in full strength doses and must

be given for a period of several weeks and continuously to help out. The advantage, of course, with these dyes is that it makes no difference whether the urine is acid or alkaline. I have had some results by giving hexamethylenamin intravenously.

I wish to emphasize the follow-up, as Dr. Reed said. The delivery of the child is not going to rid the mother of the kidney infection. She should be followed up and the kidneys lavaged until the infection is completely eradicated, because we have to always feel that the mother might become pregnant again.

Dr. John G. Pratt (New Orleans): I enjoyed Dr. Reed's paper ever so much. In 1923 or 1924, I read a paper on pyelitis complicating pregnancy and went through the records in Dr. Hume's office up to that year: 1300 or 1400 cases of infected kidneys, out of which there were 34 cases of pyelitis complicating pregnancy.

Obstetricians tell us that about 5 per cent to 7 per cent of the cases of pregnancy are complicated by pyelitis. The urologist does not get all the cases of pyelitis complicating pregnancy; he gets the worst cases. There are a great many cases of pyelitis which the obstetrician takes care of, the mild cases with a little fever, little pain in side, which subsides, maybe after two or three attacks during the course of pregnancy, and they go on to delivery and get perfectly all right. The urologist does not see that type of case. He usually sees the true pyelonephritis.

There was a German who investigated some two thousand cases of pregnancy to determine stasis in kidneys and he estimated 75 per cent to 80 per cent of these two thousand had urinary stasis in pelvis of the kidneys. That caused a great many theories as to what was the cause of the stasis.

It has always struck me strangely that when I cystoscoped these cases I very often found 3 to 4 inches up the ureter an obstruction which was a little difficult in getting by, and immediately following passage of the catheter by this obstruction, you get continuous flow of urine, showing the ureter must be dilated. Of course, pressure of the pregnant uterus may account for this. And again it may be tension of the ureter.

In the treatment of these cases we have got to bear in mind that we are dealing with urinary stasis that is infected and by the use of the catheter passed by the ureter we very often are able to straighten the ureter and help drainage. On lavage of the kidneys we see high temperatures, from 105° to 106° drop to normal.

With regard to the use of the indwelling catheter, do not use anything larger than a No. 6. It is just large enough to carry off the urine.

As far as urinary antiseptics are concerned, I agree with Dr. Reed that hexamethylenamin has been an old standby. As to dye preparations, I have treated any number of cases with them and have not seen any real results. I have seen some results with the use of alkalies. I have seen cases where urotropin did no good and I used alkalies and had good results. Personally, I do not believe urinary antiseptics of very much value. If they were we would not have so many urinary antiseptics.

Dr. A. Mattes (New Orleans): I want to compliment Dr. Reed on giving us as much information as literature bears to date, and Dr. Walther for covering up to date quite a number of problems associated with pyelonephritis or pyelitis of pregnancy.

The subject can be divided into a number of groups clinically. There is the greater classification or group and that is pyelonephritis of pregnancy prior to delivery; then another group of pyelonephritis following delivery, which comes on rather acutely, is not a chronic disease and is a conditions that very frequently causes both the obstetrician and the urologist difficulty. Pyelitis prior to delivery, usually occurring between the period three months pregnant to nine months, increasing with the age of the child, is encountered in two forms. One is the acute form with several days illness and the other is the chronic condition with a woman beridden on and off every few days, very mild temperature, very few symptoms referable to the kidney, and that is best treated medically, by any good general man or obstetrician. This patient does best under lithia waters, or any of the waters that she may like; mild diet with very little exercise; use of the bed in a position with the head of the bed lowered 6 to 12 inches, and sleeping that way during the time from the first attack to the end; in addition to that, knee-chest position 5 to 15 minutes per day will carry the mild type through pregnancy without resorting to other methods.

The acute type suddenly comes down with chills and fever. Much more can be done for that type when seen early. In the average case coming to the hospital we find a condition of nausea and vomiting, a touch of jaundice, and a dry hot skin. Treatment there is not for pyelonephritis of pregnancy. It is not a case for the urologist at all. That patient is suffering from acute starvation. The treatment there is for toxemia of pregnancy not pyelitis. That is where you need rectal flushes, subcutaneous glucose and saline, infusions, transfusions and after patient ceases vomiting, urinary antiseptics may be used. The temperature subsides and the patient is converted from an acute case of pyelonephritis of pregnancy to an individual who can take care of herself.

At the hospital, we have refrained from cystoscopy in cases of pyelonephritis unless patients have given a history of lying at home in bed for a number of days. The acute case should not be cystoscoped. If the skin is moist and the temperature high, the patient is able to handle intermittent chills and fever for 2 or 3 days.

Here, the fact to determine is whether the patient is suffering from pyelonephritis of pregnancy or stasis in the upper urinary tract, and the only way is by cystoscopy. If there is stasis on one side or another, the catheter, a No. 5 or No. 6, is left in for a number of hours to a few days with constant aspiration and watching. If there is no stasis, it is valueless.

Dr. E. L. King (New Orleans): I am glad Dr. Reed brought this to our attention. It is a very common complication of pregnancy. I would also like to emphasize the fact that it is more common at 5 to 7 months, and that has always raised the questions as to the old idea of pressure being responsible for it. It has been thought that the more frequent occurrence of pyelonephritis in primiparas would be due to pressure exerted by tension of the abdominal wall.

Another point I would like to emphasize is that it is by no means necessary to have pain in the kidney or kidneys to give us diagnosis of pyelitis. More or less fever is strongly suggestive of pyelitis.

In regard to treatment, I feel that in the milder case the use of rest in bed, water and possibly urinary antiseptics may be a good procedure. It seems that it does not make much difference whether you use alkalies or acids. The main thing is rest in bed, water and general attention for the mild case. I am inclined to believe there is some question as to the value of most urinary antiseptics.

The question has come up in these cases as to the possibility of causing abortion by the use of the cystoscope. I remember only one case that aborted after cystoscopy, and I felt that it was not due to that cause. However, I have felt it better to give the patients a fair dose of morphine before cystoscopy and another when they come back to the ward to obviate the possibility of miscarriage.

Pyelitis is frequently first noted in the puerperium generally occurring in the first 24 to 48 hours. While it is probably not very different from the patient's point of view, at least we feel ourselves absolved from blame if the patient develops pyelitis during puerperium and we can prove it is pyelitis and not puerperal infection.

Dr. E. Denegre Martin (New Orleans): It occurred to me that urologists were getting splendid results by flushes with normal salt solution.

Why cannot that be done? If you get proper drainage you do less damage by flushing with normal salt solution. I think it is worth trying. I believe in a great many cases flushing with some materials does as much harm as good.

Dr. F. M. Johns (New Orleans): I would like to ask Dr. Reed to explain more at length the difference between pyelonephritis and pyelitis. There must be some difference, possibly of severity or areas involved, between the two conditions.

Dr. Reed (closing): I do not agree that pyelitis *per se* really exists. A pyelitis, so called, is always a pyelonephritis because it is practically impossible for an infection of the renal pelvis, which is contiguous with the tubules of the parenchyma, to exist without the infection extending into the kidney.

Dr. Martin brought out a very good point. For many years I have given up the use of strong solutions with which to irrigate the kidney pelvis in cases of marked pyelonephritis of pregnancy. Very frequently nothing more than plain sterile water is used, and our results are equally as good, and often better than when strong drugs were used.

Dr. King inquires about the pressure of the uterus in these cases. We are told that the specific gravity of the uterus is the same as water, and that the old idea that pressure of the uterus was a prime factor in the production of pyelonephritis during pregnancy was wrong. However, I am not convinced that this is the case, since so many of these patients immediately improve just as soon as the foot of the bed is elevated, and the pressure of the uterus in the pelvis is relieved.

I agree with Dr. Mattes that there are certain types of these cases who should not be cystoscoped and catheterized except as a diagnostic measure. We all know that many of them will get well under the usual medical treatment.

Dr. Walther mentioned the use of pyridium. I used it for a long period of time shortly after it was placed on the market, but failed to obtain the results that were claimed from it. It did, however, produce gastric distress very frequently.

In answer to the discussion of Dr. Pratt, I again agree that small ureteral catheters should be used with these patients. Many men advocate the indwelling ureteral catheter for long periods of time, and I personally have used them for as long as three weeks without producing any appreciable damage. However, I do not believe that the average case will require the use of an indwelling catheter longer than two or three days at a time. Pyelography is not done routinely because of a certain element of risk that always exists when a severe infection, such as most of these patients have, is present.

INDUSTRIAL EYE INJURIES.*

JAMES B. STANFORD, M. D.,

MEMPHIS, TENN.

The present rapid industrialization of the South makes a study of industrial injuries peculiarly interesting and important to Southern surgeons at this time. The small-town doctor may consider that the subject of industrial injuries interests only his city brother who is near factories, but it is a small place indeed, which does not support an automobile repair shop where all types of injuries may be encountered. The enactment of Workmen's Compensation Laws affect not only the paper work in connection with industrial accidents, but actually increases the amount of this work to be done by the surgeon. This increase, of course, is due to the fact that injuries which the workman considers of small consequence are now taken to the doctor, whereas formerly they were neglected because the injured thought he would probably be held responsible for the bill. Thus many serious complications with loss of vision in eye injuries are avoided.

Injuries which would be trifling to other parts of the body may, in the eye, cause much pain and loss of vision and thus much unhappiness and reduction of earning ability. It is not uncommon to see roentgen ray films which reveal many metallic foreign bodies under the skin of the face of which the patient was unaware, but one of these same foreign bodies in the eye would perhaps cause total blindness.

About 10 per cent of blindness is the result of industrial accidents, and nearly 10 per cent of non-fatal industrial injuries are eye injuries. This occasions enormous loss to the community in upkeep of the blind, not to speak of personal suffering and unhappiness which cannot be measured in terms of money. These facts establish the importance of careful study

and treatment of eye wounds. The most common of all eye injuries is the lodgement of small foreign bodies in the eye, especially on the cornea. This is often considered as of minor importance by the workman, but is not infrequently the cause of blindness when improperly treated. Practically every factory has on its payroll a man, often a foreman, whom we may term a "shop oculist." This man is considered to be very clever at removing foreign bodies and his "office" equipment is various and amazing. He removes foreign bodies with a hair from a horse tail, a sharpened tooth pick or the corner of a soiled handkerchief. One such operator of my acquaintance had a most original method of removing foreign bodies. He would clip a button from his shirt, insert it under the patient's upper lid and instruct his victim to wink the eye. These methods do not always cause total blindness but they almost always add much to the work, worry and responsibility of the oculist who eventually gets the patient. These "shop oculists" do not reduce the cost of industrial eye injuries, as they innocently suppose, but increase it to a marked degree.

The instrument of choice for removing a corneal foreign body is a sharp spud. Any other instrument will cause a considerable loss of corneal epithelium and thus increase the patient's pain and the danger of ulceration. The most satisfactory anesthetic in these cases is a fresh 2 per cent solution of butyn, for the anesthesia is rapid, corneal desquamation is not promoted, as is the case with cocain, and the pupil is not dilated. There is some difference of opinion as to what should be done after the foreign body is removed. During the last few years I have adopted the custom of putting 1 per cent yellow oxide of mercury into the eye and applying a dressing. I believe that this method has shortened the period of convalescence and prevented infection in some cases. These patients often return to work in dirty or dusty surroundings, and in many cases their homes are so unclean as to render an

*Read before the Section on Eye, Ear, Nose and Throat, at the Sixty-fourth Annual Session of the Mississippi State Medical Association, Jackson, May 13, 1931.

exposed abrasion liable to infection, and there is also less rubbing of the eye when a dressing protects it. When a corneal foreign body has been allowed to remain in the eye for a day or more the reaction is often severe and in these cases it is well to use atropine.

Abrasions and contusions of the eye are common in shops and factories. Abrasions are best treated by cleansing the eye and applying a protective dressing, such as is used after the removal of a foreign body. Butyn in solution or as an ointment is often necessary for the relief of pain. I have not found the ordinary 1 per cent butyn ointment sufficiently strong for the relief of such pain but have found a two and one-half per cent ointment to be quite valuable.

Eyes suffering from contused wounds require atropine and hot applications. No case of contused wound of the eye should be discharged without ophthalmoscopic examination and examination of visual acuity. Detached retina, intraocular hemorrhages and rents in the choroid are not uncommon results of comparatively light blows to the eye. Dislocation of the lens, iridodialysis, rupture of circular muscle fibers of the iris, hemorrhage into the sheath of the optic nerve and commotio retinae may also occur.

I should like to make one exception to the use of atropine in contused wounds, and that is in cases where hyperemia is present. I know that it is customary to use atropine in these cases but I have had two cases of secondary glaucoma with subsequent loss of vision follow such treatment, and have since felt that these cases might have been saved had I used eserine instead of atropine. Of course, one may not base conclusions on two cases, but it is reasonable to consider that the blood which caused the glaucoma by obstructing filtration might have been more readily removed from the eye if the filtration angle had been enlarged instead of contracted. When secondary glaucoma does occur from such an injury and it cannot be promptly reduced by the use of myotics, the anterior

chamber should be opened and the blood removed by irrigation. The results in these cases are not encouraging but are better if done within forty-eight hours of the onset of glaucoma.

In infected wounds of the cornea I give foreign protein early and in rather large doses. The injection of milk or other protein into the muscle has saved many eyes which otherwise would have been lost. I usually use lactigen in doses of ten cubic centimeters in the muscle of the buttock in adults. This is repeated in from two to four days as indicated. The general reaction may be rather severe, but is of short duration. Those foreign proteins which do not cause a febrile reaction have not been satisfactory in my cases.

Perforating wounds of the eyeball are quite common, and care must be taken in these cases to determine the presence or absence of intraocular foreign bodies. The location of such injuries is also of great importance. The danger of infection in these cases is in direct ratio to the length of time the wound is left open, so when these patients are sent to my office, it is my custom to operate immediately rather than to waste time in sending the patient to the hospital and, if necessary, the patient is later sent to the hospital. The operation, of course, consists in a toilet of the wound and the covering of the wound with a flap of conjunctiva. I do not know who originated this procedure but it is certain that it has been the means of saving useful vision in many eyes which would otherwise have been lost. My knowledge of the operation was given to me by Dr. Allan Greenwood and I follow his technic exactly. The flap is prepared, preferably at the side nearest the wound to be covered, and two sutures are introduced into the edge of the flap and into the subconjunctival tissue at the other side of the cornea in such a manner that when tied, the flap will cover the wound. If one is careful in undermining the conjunctiva the flap will be thin and may be easily stretched so as to cause little tension on the sutures. The sutures

are ready to be tied before the wound itself is touched. Then the wound is cleansed, iridectomy, if indicated, is done, the pillars of the colomba replaced and the sutures tied immediately. The regular order of these steps should not be varied for otherwise the danger of infection and loss of ocular contents is increased. I have found no difficulty in covering any part or even all the cornea in this manner. The flap is not disturbed until the sutures pull out, when it will slip back to its original position. Such a flap will protect the eye from infection, will insure good apposition and will prevent leakage of ocular contents. If an intraocular foreign body is present it is, of course, removed before the wound is closed.

The problems of intraocular foreign bodies must be met as they arise since no rule may be made to cover all cases. It is generally considered that removal of magnetic foreign bodies by means of a giant magnet by the anterior route is advisable when possible. This is accomplished with as little trauma to the lens and iris as possible. If the wound of entrance is very small the foreign body is drawn into the anterior chamber and is then removed through a keratome incision at the limbus. This incision is best quite small. The blade of the iris scissors or other small instrument may be used as a magnet tip and introduced into such a wound to guide the metal. It is not unusual to remove a foreign body in this manner without emptying the anterior chamber or disturbing the round pupil. Those metallic foreign bodies which cannot be removed in this manner are best removed through a stab wound in the sclera. In these cases I make a curved incision in the conjunctiva and sub-conjunctival tissue and place a double armed suture in the edge of the convex flap and a single suture in the concave flap. These sutures serve to retract the conjunctiva during the removal of the body and also serve to cover the scleral wound with a double layer of conjunctiva after the

method of Francis. The incision in the sclera is made with a sharp Graefe knife and the small magnet tip introduced gently into the vitreous.

The problems of non-magnetic foreign bodies are as numerous as the accidents. In no case should a surgeon attempt to remove an intraocular foreign body without first having it exactly localized. The prognosis should be guarded in all cases of intraocular foreign bodies, for often detachment of the retina or other disaster will occur when we think we have definitely reached easy sailing.

Treatment of traumatic cataracts will vary as to the age of the patient and with the tension of the injured eye. In young individuals, and in some of middle age, the lens will often absorb without interference. In others, one or more needlings will be necessary, and in older patients ordinary extractions are advisable. In cases of secondary glaucoma extraction by the linear method or otherwise should be done immediately.

Burns of the eyes in industries are of all kinds, hot metal, electric flashes, ultra violet and chemical. The most troublesome burns in my experience have been those from molten metal. If any of the agent causing the burn remains in the eye it should be removed immediately, and in the case of burns from chemicals the chemical should be neutralized immediately. Lime is frequently hidden in sealed folds of the conjunctiva and is difficult to remove, but patience is rewarded by conservation of vision. Atropine should be instilled and a bland oil should be used at frequent intervals. Where symblepharon is likely the skin should be taken from the inside of an egg shell and placed between the globe and lids. This is more effective than any other agent I know. The electric welding apparatus generates a great deal of ultra violet light and is the cause of much discomfort which is promptly relieved by butyn and cold applications. The symptoms are marked photophobia, blepharo-

spasm and lacrymation coming on from four hours to one day after exposure. The welder himself is usually wise enough to protect his eyes but the curious worker near by is often a sufferer. Some men have found butesyn picrate eye ointment of help in treating all types of burns. Severe burns of the lids are treated as other severe burns of the skin, and in addition they should be sutured together so as to limit the amount of ectropion and make subsequent skin grafting easier and more effective. In repairing wounds of the lids the old surgical principles of cleanliness, apposition of parts and drainage are still in force. In ragged wounds some study is necessary to get the parts properly apposed so as to prevent ectropion. Antitetanic serum should not be forgotten in these cases.

Proper lighting and safety devices in mills and work shops will prevent at least half the eye injuries. I know one large wood-working plant where the cost of eye injuries has been reduced to 20 per cent of what it was with the same number of men at work.

The problem of the malingerer is always with us and he will consume more time and patience than is necessary to save the eyes of many honest men. The malingerer is usually an ignorant fellow who has been instructed in the simulation of blindness by a friend or by an "ambulance chaser," and he may be always trapped by one of the malingering tests. These texts are all given in detail in the various text books, so I will not take the time of this body to describe them.

The determination of percentage of permanent visual loss has been made much easier since the publication by the American Medical Association of the report of its committee appointed for that purpose. This report is published in the form of a reprint by the Association under the title of "Appraisal of Loss of Visual Efficiency," and should be in the hands of every oculist who handles industrial cases. This committee bases its calculations on visual acuity,

fields of vision and muscle balance, and gives formulae by which visual efficiency of one eye or both eyes may be determined. Visual acuity, of course, include both distance and near vision. This report requires study in order that a report which is fair both to the employee and the employer may be rendered. Some factors interfering with visual efficiency, such as loss of accommodation, of color vision, lid deformities and epiphora, are left to the judgment of the oculist, since they manifestly may not be reduced to mathematical formulae.

The findings of this committee are not official in all states but the eminence of its source gives it great weight in the settlement of disputes relative to disability following industrial injury or occupational disease.

DISCUSSION.

Dr. A. G. Wilde (Jackson, Miss.): I was very amused at Doctor Stanford's account of the shirt button method for the extraction of foreign bodies from the eye. Probably it was suggested by the old idea of inserting a flax seed under the upper lid, in the hope that from the resulting flood of tears the offending particle would become dislodged and carried away in the flood. From the standpoint of treatment this is just about as useful and belongs to about the same vintage as "wropping" the hair in order to lift a ptosis of the uvula.

As our industrial development and rapid transit facilities increase, traumatic injuries will keep pace, although consistent efforts by the companies concerned and their insurance inspectors will maintain them below the figure they would assume if each individual was left to care for himself.

A recent monograph on "Intraocular Foreign Bodies" by Dr. Sena of Buenos Aires has appeared in Spanish, which I reviewed for the American Journal of Ophthalmology. During his investigations he conducted experiments regarding the effects of various intraocular foreign bodies introduced under aseptic precautions. He then watched them clinically, and later enucleated the eyes and examined them grossly and by sections.

Copper particles intraocularly were found highly toxic, not only by their own action, but as they slowly dissolve in the alkaline medium, their soluble products spread these effects broadcast, causing the entire eye to go on to destruction. These particles are usually derived from the explosion of fulminate caps, and their immediate extraction is imperative. Unfortunately this cannot be done

by magnet, and our manipulations in attempting it are liable to do considerable damage. As Dr. Stanford says, these eyes are always liable to retinal detachments. Iron and steel particles constitute about 75 per cent of retained intraocular foreign bodies, and when magnetizable are readily extracted if in the anterior chamber. When allowed to remain they quickly become enveloped in a layer of fibrinous exudate, but the globe remains unaltered for some time. Then as the particle is slowly dissolved, signs of siderosis appear on the lens surface, iris and ciliary body, causing them to assume a color ranging from dark yellow to actual rust. As this is so gradual they do not demand immediate extraction if the environment and equipment are not perfectly suitable, and the foreign body itself is not infected. Several days can be allowed during which general methods for the prevention or alleviation of reaction should be instituted. The patient can then be brought to where its extraction can be effected with more chances of success.

Glass particles, being non-soluble, can be retained in the eye without great injury for considerable time, providing infection is not introduced along with them. As they are non-magnetic, their extraction is always difficult, and if in the posterior chamber, such attempts may do more harm than the glass itself if left alone.

The eye is highly resistant to the chemical action of lead, although the majority of small shot that perforate the eye pass entirely through and lodge in the orbital tissues.

In making posterior sclerotomies for foreign body extractions, one should recall the location of the vortex veins and long ciliary nerves, and carefully avoid injuring them.

While incandescent particles are aseptic, they can give rise to intraocular inflammation of varying degree, due either to mechanical or chemical irritation. Those portions that have the richest blood supply are noted to react most severely, that is, the ciliary body, the choroid and retina, the delicate elements of the last being especially susceptible to chemical action.

It is noted that the majority of foreign bodies affect the left eyes of workers, as they are usually right handed and this mechanically protects the eye of that side.

Where the surface is infected or is liable to be so, I use a rather stronger antiseptic than oxide of mercury, the combination of metaphen with butyn being especially useful. Otherwise, White's ointment of 1:3,000 bichloride, or the same strength of oxyquinoline sulphate is applied frequently enough to keep the conjunctival sac well filled. In the eye, ointments are usually preferable to solutions, as they are not readily washed

out by the tears and thus continue their action over a longer period. Of course, the intramuscular injection of milk of high bacterial count is our sheet anchor in all infections of the anterior segment.

The conjunctival flap employed after corneal wounds was designed by Kuhn, and should always be as thick as possible, dissected free very liberally, and sutured as far down over the cornea as possible so as to afford the maximum protection. I even use this frequently in cataract extractions.

In treating any industrial injury we should always keep in mind the possibility of future litigation. These records must be complete and detailed. When made at the time of examination and treatment they are introducible in court as evidence. If made later, or during the trial you attempt to recall particulars of the injury, the opposing counsel can question the accuracy of your memory and thus decrease the weight of your evidence.

It has been generally held in court that failure to make roentgen ray films of eyes that contain or may contain foreign bodies constitutes negligence, and the doctor responsible for the omission is liable to a personal damage suit. Our courts have recently awarded several verdicts on this account. A roentgenogram is, therefore, very important from the standpoint of prophylaxis for litigation and should never be neglected where a retained foreign body is present or suspected. This film may not be of great value or importance in the treatment, but if you are later called upon in court to produce it and are unable to do so, you may be found both professionally and financially embarrassed.

As Dr. Stanford well indicated, the malingerer is with us now as never before, and due to industrial and government compensations his tribe is on the increase. Usually their first symptoms are not as severe as after they have been coached by some litigation-seeking "ambulance chaser." Thus symptoms are developed that not only exceed the evident injury, but defy all treatment and baffle the diagnostic skill of the most acute observers.

In dealing with such individuals our backs must be against the wall, and the burden of proof be thrown upon the claimant. Thus interviews of this kind become largely a battle of wits. Remember that one can usually see out of an eye better than the observer can see into it. Where there is a marked discrepancy between the professed vision, and that which after an examination of the media and fundus you estimate it should be, suspect that he sees more than he admits—especially if it is to his benefit to see less.

Be wary about bestowing those much sought

after articles of uncertain value called "medical certificates," as like the ghost of Banquo, they can return to haunt you under very embarrassing circumstances. As I was called upon to do so much of this work for the Government, I have accumulated a repertoire of twenty-six tests for malingering, and should a man fall down upon one of these his genuineness is open to question. Many of these malingerers are old hands at examinations. They may have lost that same eye several times, and collected damages upon it just as often. As it may thus be a perpetual source of income, they become acquainted with the usual tests employed, and unless you have a few new tricks up your sleeve, they can receive your endorsement of serious visual disturbance when such may not actually exist.

I was very much interested in the use of egg-shell skin for the prevention of symblepharon, although I have had no experience with it. When the base is clear of infection or slough, I use the mucous membrane of the lip and transplant it into the conjunctival sac according to the Denig technic. Late symblepharon or corneal complications are especially liable to be formed after alkaline burns, such as lye, ammonia or lime, hence prognosis in these cases should always be guarded, and this possibility kept in mind.

Dr. W. S. Sims (Jackson, Miss.): I enjoyed the paper and discussion very much. It was very refreshing and helpful to hear this paper and discussion by men well acquainted with these subjects, especially when they are subjects in which we are most interested.

There is one thing that was said, I think, that I regard as very important, and that is the perforated wounds of the cornea and sclera. I wish to emphasize the importance, if you have a perforation of the iris, to be sure to draw out enough to leave an opening in the iris larger than the wound in the cornea. Otherwise, we have an anterior sinusitis followed later perhaps by very serious results as secondary glaucoma. In withdrawing the iris, as we know, it is very difficult and there is really no danger in drawing out too much. The trouble is we rarely ever get enough. We must remove enough, so that when it retracts it leaves the cornea clear of any contact with the iris, and the treatment afterwards, if the operation is a success, is very simple and very satisfactory.

Another thing I wish to refer to is gun powder burns. I suppose that comes under the head of the subject under discussion. The method of attempting to pick out the grains of powder is very tedious and very unsatisfactory. It is almost impossible to do this without leaving some powder stains, even if we get the grains out, and if they

are in the central portion, they frequently leave the vision very much impaired. The better plan, if we see these patients early after the accident, is to keep them in bed in the care of a nurse and use a mild antiseptic wash of some kind—boric acid, at certain intervals and application of cold for forty-six or fifty hours—something like that—allowing time for the particles to become partially loosened or dislodged and then drop peroxide of hydrogen in the eye, and it will create a gas that will force the particles out, not only the powder, but the stains as well. It is remarkable how clear and free the cornea is after this treatment. The main thing to remember is to wait at least for forty or fifty hours before applying the peroxide of hydrogen. You want to wait until the particles loosen and the secretions form around the particles, and then apply your peroxide of hydrogen, and the gas created thereby forces the grains of powder—not only the powder, but the stains as well—out of the eye. The last case I had of this kind was a man blowing up stumps and the whole side of his head and one eye was filled with powder.

Dr. E. L. Watkins (Clarksdale, Miss.): I enjoyed Dr. Stanford's paper very, very much, and I think it is very, very timely.

All too often, when a patient comes to our office for the removal of a foreign body, or an injury to the eye, industrial or otherwise, that patient nearly always has a compound wound, however slight it may have been in the very beginning. Some one has used a horse hair, or a tooth pick, or a button, as Dr. Stanford mentioned, and done that. Often times the patient has damaged the eye in attempts to get the body out of the eye. Even, sometimes, another physician may have damaged the eye in an attempt to remove the body. I think that is due to the physician not having equipped himself with a proper lens. Secondly, he must have a good light to enable him to get the proper light on the body to be removed. If he gets a true, bright light, with a bright instrument, it will not injure the eye. All too often they make a swab as big as the end of your little finger with a match or tooth pick or something and rake across the cornea. If they don't abrade the cornea it is surprising. I think it is a matter we should be a little more careful about.

Our eyes are a rather important part of our anatomy. It has been said they are the light of the soul, and they are especially the light of the body, and they should have the careful consideration to which they are entitled. I feel if we will equip ourselves with a magnifying lens and use that lens in every instance we will not damage the cornea so much in the removal of foreign bodies.

Dr. Stanford (closing): I am very grateful to these gentlemen for the discussion of the paper and I particularly want to thank Doctor Sims for telling me how to remove gun powder from the eye. That was entirely unfamiliar to me and I appreciate it very much.

EARLY SYPHILIS: ITS DIAGNOSIS AND TREATMENT.

R. L. GORDON, M. D.,

NEW ORLEANS.

Since the time of Columbus much has been written about the most common and destructive diseases known to the profession as syphilis and lues and to the laity as pox, old rale, bad blood and whatnot. Nothing in this brief paper is original or intended to be, and there would be no reason for its being written if we, as physicians, would really endeavor to properly diagnose and then properly treat this most common disease. Thousands of articles appear each year on this subject yet most of us continue blithely on our way treating this condition in a most unsatisfactory and negligent manner.

Gentlemen, if this paper can arouse in our minds the seriousness of the diagnosis and proper treatment of early syphilis (before the graver complications arise) and so instill into our hearts the one thought that the syphilitic is one that must be treated conscientiously and to the best of our ability; the loss of time that you gentlemen may consider this paper to be is well compensated for. All of us well know the enormous economic cost of the disabled syphilitic, yet many of us still consider our six intravenous injections of the arsenic derivatives as the last word in anti-syphilitic therapy. Our mistakes of today will reap their harvest in the insane institutions and in the general hospitals twenty years hence.

Please remember that when a syphilitic reports for treatment, it is far better to become a pessimist than an optimist, and

at least be honest, not only with him, but with yourself. Syphilis is a difficult disease to treat and is treacherous as a pet rattlesnake from whom the fangs have not been removed; ready to make a prevaricator of us for our over-indulgent optimism and a wreck of the unfortunate individual.

How many of us know, or care to know, how to diagnose this condition in its early stages? By this, I mean from the initial lesion down to, and including the secondary stage; also including those cases with a positive Wassermann and no other clinical findings.

No primary lesion is typical. The old Hunterian chancre with its various modifications, is a relic of the past. No lesion on the genitals, except that of the venereal wart, should be regarded as innocent until proven so. (This includes the whole category from hair cuts to herpes.) Now, let us go a step forward—a patient presents himself with a genital lesion, the appearance of which means nothing. What should be done? The city practitioner has one of several methods at his command; either to make a dark field or India ink examination or to send the patient to a pathological laboratory for a scraping. In the country those who use microscopes have the choice of either making the examinations themselves or treating the sore locally, and sending the blood to a competent laboratory for a Wassermann after a period of from twelve days to three weeks. We all know that it requires about this length of time between the appearance of the primary sore and the appearance of a positive blood test.

Let us now presume that we have a patient in whom the proper dark field has been made and with a negative report. Nevertheless, one should feel that syphilis cannot be ruled out until the proper time has passed and a Wassermann made.

It is my hope not to have bored you with what you may consider unnecessary details, yet it is important that before a diagnosis of syphilis is made, all safe-

*Read before the Louisiana State Medical Society, New Orleans, April 14-16, 1931.

guards should be thrown around these unfortunate individuals. This is my plea for a square deal in the diagnosis of syphilis.

The appearance time from the date of exposure, to the appearance of the initial lesion, varies from about twenty days to three months. The usual time, in the author's experience, varies from between twenty to thirty days. The secondary stage with its usual skin manifestations, appears from six to eight weeks after the primary lesion. As stated before, during this time, with the exception of the first two or three weeks, the Wassermann will be positive.

Let us now take another case, either in the chancre or secondary stage, or in the quiescent stage of a positive blood Wassermann, with no other clinical findings. You perhaps wonder why these three stages should be treated with the same, or practically the same, methods. The following is the answer. Long before the chancre develops, the *treponema pallida* has been generally distributed over the entire system and the condition now becomes a general affair rather than a local one. Secondary syphilis is merely the skin reaction to a spirochetal invasion.

We have found that the following outline of treatment serves fairly well in early syphilis:

(1) A series of from six to eight injections of one of the arsephenamines at five to seven day intervals are administered by intravenous method. (It is wise to start with a 4.5 decigrams injection of neo-arsephenamine and rapidly increasing to 6 decigrams.) This should constitute the first course. Before each injection a careful examination of the urine must be made for albumin, casts and bile. The patient should also be questioned in regard to any cutaneous itching. These are all symptoms of arsenic storage in the body.

(2) A rest of two weeks to a month. This allows the vital organs a relief from the barrage of heavy metal bombardment to which they have just been subjected.

(3) Mercury along with 15 to 20 grains of iodide, by mouth, three times a day may be administered in several ways. The intravenous water soluble salt may be given in 0.1 gram doses from two to three times a week, until twenty or thirty doses have been given, depending, of course, upon the kidney tolerance or signs of salivation. The writer prefers mercuriosal. The intra-muscular injections may also be employed, using either the water soluble or oily suspensions, at from three to five day intervals. Of this type, the biniodide is preferable; from $\frac{1}{4}$ to $\frac{1}{2}$ grains dissolved in vegetable oil. Inunctions of mercury are dirty and few private patients will tolerate them, yet this is a most effective method. The standard mercurial ointment obtainable at any drugstore well rubbed in for from forty to sixty minutes, using one dram each night for 36 rubs, may be given.

(4) Repeat after an interval of four weeks, six intravenous injections of arsenic. Most patients improve physically on this treatment. Yet in a few the administration of tonics are necessary, due to the secondary anemia.

(5) Rest of from four to six weeks is essential, followed by injections of either water soluble or oily suspensions of bismuth (2 c.c. of 1.5, $\frac{1}{2}$ gr. of the water sol., 2 gr. of the salicylate in oil) given at three to five days intervals over a period of from fifteen to twenty doses. Care must be exercised not to produce a nephritis and the gums should be carefully watched for a bismuth line.

(6) At this period another rest is allowed varying from four to six weeks followed by a course of arsenic.

(7) Another rest is given varying from one to two months by either a course of mercury or bismuth.

A year or more has passed. Is the syphilitic well? You, perhaps, have noticed nothing was said about Wassermanns during the treatment. We all know that a negative test will occur in most cases after the first course of treatment. This only

gives the patient a false hope of security and it is wise to make these tests as infrequently as possible to satisfy his mind during the first year of treatment. Few syphilitics can understand why they should continue treatment after the blood test is negative.

Now, how are we going to prove, or attempt to prove the cure? A Wassermann and a spinal fluid examination should be made. If these are negative, what is our advice? Here is the writer's. Check the blood reaction at the end of another six months, repeat at least one course of either arsenic, mercury, or bismuth during the second year. At the end of this period another blood test and spinal fluid examination is made. Request the patient not to marry before three to five years from the time of the initial lesion and instruct them to have a blood Wassermann each year during the period of life.

DISCUSSION.

Dr. M. H. Foster (Alexandria): Dr. Gordon says that the diagnosis of syphilis is dependent upon the early diagnosis of suspicious genital lesions, but I shall go one step further and say it is dependent upon the diagnosis of any suspicious lesion anywhere. The pathology is always the same, an obliterative endarteritis, infiltration, induration, and that holds true anywhere. I heard of an old man who had a chancre on his bald head because he had used a washrag which had been used by a young man with a chancre of the nose. I have seen chancre of the nipple. I have seen it at the tip of the tongue, and got a definite story of the use of a trombone also used by a man with chancre of the lip. It doesn't make any difference where the lesion is located, it must be investigated and it always shows the same pathology. I saw yesterday a young man with a lesion at the base of the penis and another at the side of the scrotum, both strongly suggestive of impetigo contagiosa from the gross appearance. Palpation disclosed induration, the Wassermann came back four plus, and yesterday, as I say, I began his treatment.

I cling to the belief that we should forget the secondaries and the tertiaries and consider the case either early and active or later and relatively inactive. Arsenic controls the early active lesions better than anything else and the exact form in which you give it makes no special difference. Bismuth is best to finish up with. But the thing that really matters is the diagnosis of the early case by the investigation of all suspicious lesions,

even if they do not, happen to appear on the genital tract, for early diagnosis is much more important than any method of treatment.

Dr. E. D. Martin (New Orleans): You are all specialists today, but though I am a general surgeon, I rise to discuss the problem of syphilis, to enter a plea for a careful diagnosis, for a diagnosis that is positive before it is given to the patient. I have recently seen and treated a young man whose life for years has been blighted by the fact that he was told he had syphilis, was treated for syphilis, whereas he never had it at all. He ruined himself financially to take the treatment which he never needed, he resigned the idea of marriage, he lived the life of a recluse, and it is only by degrees that he is returning to normal life and spirits. Such a thing is more than a tragedy, and I protest against it with all my strength. When I began to practice we had to wait for the secondaries before we made a diagnosis, and that method killed a good many patients, I don't doubt, but I can put my finger today on many who are alive in spite of the delay in treatment. I haven't all that faith in a Wassermann report, though I do not underestimate the value of the laboratory. I want, however, to be certain of the person making the examination. The young man I spoke of had a slight lesion on the foreskin which disappeared of itself before the Wassermann report came back, but I have told you what happened to him on the strength of that positive report. God knows how many similar instances could be cited, and this is such a serious matter we cannot be too sure we are right before we undertake to wreck people's lives with our reports and our treatment.

Dr. M. P. Boebinger (New Orleans): I agree with all Dr. Martin has said, but there is another side of the picture. I recently saw a negro dentist who had been treated in Asheville for several years for a supposed pulmonary and laryngeal tuberculosis. Among his laboratory reports he had a number of reports of a negative Wassermann. His oral cavity was negative, his larynx showed marks of some old disease, what I could not decide definitely, and his only trouble at present was a slight huskiness. He assured me that he had had this for many years. I was sure the report of the healed tuberculosis must be correct, but I finally decided to have Dr. Lawson make a spinal. The report was four plus positive. I mention the case because all the circumstances were misleading, especially the story of a healed tuberculosis and the repeated negative blood Wassermanns, and because I want to emphasize the value of the spinal test in the obscure cases.

Dr. Hans Schroeder (New Orleans): Speaking of unusual locations of chancre probably you all have heard of chancre of the nose in physicians who have picked their noses after treating luetic patients, of which there are about five cases on

record. But the most interesting to me, and a rare one, is chancre of the eye of which there is only one on record, reported from Chicago in 1919. A negro in a fight with another one bit him in the upper lid; where then the primary lesion developed.

Dr. Otto Joachim (New Orleans): Dr. Martin says we must be sure to be right before we tell the patient anything, but how can we be sure? It isn't always an easy matter. Some time ago I operated on a man for a submucous resection of nasal septum, which progressed normally and healed promptly. A week or more later he returned rather alarmed, for he had coughed up blood. Since I could find nothing in the nose to explain it, I sent him to a prominent diagnostician, who returned the diagnosis that he had a gumma of the lower part of the lung. A prominent pathologist produced a positive Wassermann. I shook my head. The patient was very frank and intelligent and nothing in his history would explain the supposed condition. Another pathologist was called in and returned a negative Wassermann, and a third one also gave a negative report. But we have the diagnostician and the first pathologist on the other side, and I am therefore certain it isn't always easy to be right.

Dr. H. W. E. Walther (New Orleans): We rarely see now the lesions once described as the Hunterian chancre, and unless we look with suspicion on every lesion that we see, no matter where located, we shall do our patients an injustice. Moreover, all such lesions must be scraped. If we have not a microscope at our elbow, we can keep a bottle of India ink on hand, and get the pathologist a smear he can examine later. In my office, whenever I see a patient with a venereal sore or any suspicion lesion, I scrape it and I state to the patient that the lesion may be syphilis. I don't tell him he has syphilis, but I tell him my suspicion. If he doesn't come back to me, as these patients frequently do not, at least I am sure he cannot go to another urologist with a well-developed case of syphilis and say that I told him nothing serious was the matter with him.

Dr. R. L. Gordon (closing): Dr. Foster is quite right, chancres can appear anywhere. Suspicious lesions should be investigated no matter where found for they are not confined to the genital tract, and I did not mean to give that impression. There are sometimes clinical cases of syphilis in which the Wassermann is negative. If you see such a case and are sure that it is syphilis it is sometimes well to do a provocative Wassermann. Load the patient with iodides from 7 to 10 days and then make a Wassermann or even a provocative dose of neosalvarsan may be administered and the blood elimination made in a few days. This procedure will often clear up an obscure case.

DISABILITY FOLLOWING FRACTURES.*

KING RAND, M. D.,

ALEXANDER, LA.

The writing of this paper was prompted by the fact that in private practice and in the capacity of referee in casualty insurance cases, we have found it to be a pertinent truth, that among the most common causes of disability as a result of industrial accidents is fractures; and that the disability resulting from such fractures is unduly prolonged; such are also the conclusions of others inquiring into the subject.^{1, 2}

We shall attempt in a short summary to give our opinion as to why this status exists and to make certain suggestions in the hopes of aiding and abetting at least a partial remedy. That such a situation exist, the records of the insurance companies and the decisions of the courts are mute witnesses. That safety-first measures might lessen the number of such accidents is admitted; but the hazards of industry and the natural tendency of man to hold in contempt the dangers of his trade will always furnish material for the industrial surgeon.

Statistics on the subject confirm my opinion and experience that in general practice, and more especially in industrial work, the disability resulting from fractures is unduly prolonged. Why? First, that the general principles of treatment are not fully appreciated or are poorly carried out, with the resulting anatomical and functional disturbances. Other contributing influences are certain legal, economic and psychic elements. The most common cause of prolonged disability following fractures we have found to be faulty reduction of the fracture and as a close runner-up, too long continued disuse of the member. Numerous fractures today are set and treated without the diagnostic aid and consoling confirmation of reduction furnished by the roentgen ray. Numerous

*Read before the Louisiana State Medical Society, New Orleans, April 14-16, 1931.

surprises will be furnished and many mistakes avoided if every fracture is subjected to two right angle planes or stereoptical exposures and the reduction checked by film or screen.

Next, all fractures needing reduction demand an anesthetic from the humanitarian standpoint to relieve pain and to facilitate reduction by relaxation of muscle spasm resulting from the local trauma. We have available general anesthesia, spinal anesthesia, regional anesthesia and anesthesia resulting from direct infiltration of the fracture site. All methods are useful and none can be discarded or any one used to the exclusion of the others. The general anesthetic has the advantage of administration with comparative ease under all circumstances. The injection of large amounts of 2 per cent novocaine direct into the fracture area offers the advantage of a more deliberate method of reduction, but its aseptic technic should be carried out to the letter to avoid contaminating a field possessing optimum conditions for bacterial growth.

In the reduction *per se* we still are of the opinion that most fractures can be reduced by traction and counter traction. It is admitted that to convert a simple into a compound fracture is necessary in well indicated cases, but that it is attended with risk; that it can not have universal application by all men and that it is too frequently resorted to, can not be denied. To quote Skudder³ in a recent article: "We will honestly try in all doubtful cases the non-operative method first."³ In the mechanics of reduction two of the dicta of Böhler are worthy of constant consideration: (a) To establish the position and direction of the proximal fragment, with which we are attempting to align the distal fragment; and (b) to study in all cases the direction of force exerted by the contracted muscles attached to the bone fragments.⁴ It can not be stated what amount of displacement is compatible with satisfactory results; in the long bones a

certain amount of misalignment with no shortening is permissible, but the nearer we approach to the joints or into the joints, the more complete the reduction necessary, an objective to be accomplished by any recognized methods.

How is immobilization to be maintained, reduction having been assured by roentgenological confirmation? Bohler or similar traction splints with modern quick-setting plaster, would likely fill the requirements, though the catalogues of the surgical instrument houses, the equipment and apparatus store rooms of hospitals, clinics and physicians' offices, plus the innumerable innovations seen parading the streets and on display in the wards, attest to the many devices used. Our plea is for simplification and standardization. During our recent unpleasantness by orders a universal type of splint was found adaptable to most war fractures. We do not see why this idea can not be used in civil practice, and the thought so that end is worthy of the leaders in medical teaching.

Admitting satisfactory reduction and fixation how long shall we continue immobilization? When shall we insist on motion and massage? Bohler, of Vienna, who seems at present to be the most potent influence in modern treatment of fractures, contends that fixation is too early terminated in most cases, estimating the healing of fractures to take on the average nearly twice as long as has been generally accepted. While keeping an open mind on the subject, my limited experience gives me the temerity to insist on motion of the joints in proximity as soon as the roentgen ray shows sufficient callus to maintain alinement when temporarily removed from the supporting cast or splint. Children might be kept with impunity for indefinite periods running into weeks firmly immobilized in casts and splints, but the innumerable cases of industrial accidents with simple transverse fractures of the long bones correctly reduced and fixed with the adjacent joints immobilized for

weeks sent to us with ankylosis or very limited motion resulting, has been enough to prevent immediate acceptance of the practice of prolonged fixation. With supporting callus, confirmed by the roentgen ray, the early temporary removal from the splint, with active and passive motion, massage and heat (diathermy) should not be advised but be insisted upon, and done under the direction of the attending physician or his assistant. These are all essential to satisfactory results. These directions can not be left to the initiative of the injured as their execution produces some discomfort, a necessity not evident to the mind of the average industrial case, who most infrequently is not worried with the factor of time, as a livable wage is assured by law while he is incapacitated. Delayed union is some time met with but rarely non-union is simple fractures, and then is rarely due to systemic conditions but to local causes, which experiences are confirmed in a recent article from the Mayo Clinic.⁵

Another factor favoring the early formation of a firm union is weight bearing, which also tends to restore muscle tone and flexibility of the joints. The natural tendency on the part of the patient is to depend upon crutches and other aids, enjoying temporary freedom from pain and swelling, postponing the time of recovery until the patience of the attending physician is exhausted, the case coming into court with the testimony that the use of the member produces pain and swelling of the joint; the case is awarded additional temporary disability at a time when he should be at least returning to light duty or work furnished usually by an employer willing to co-operate in seeing that the injured employee has light work, which in itself constitutes an excellent treatment in the restoration of function and the return of confidence and self-respect.

REFERENCES.

1. Illievitz, A. B.: Fractures, contusions and lacerations. *Am. Jour. Surg.* 10:56, 1930.

2. Davis, P. A.: Fractures in industry. *Jour. Am. Med. Assoc.* 91:695, 1928.
3. Scudder, C. L.: Operative treatment of recent fractures. *Ann. Surg.* 90:589, 1929.
4. Bohler, Lorenz: *Treatment of Fractures*, 2nd ed.
5. Henderson, M. S.: The causes of delayed union. *Minn. Med.* 12:529, 1929.

DISCUSSION.

Dr. Paul G. Lacroix (New Orleans): The field of traumatic surgery in general and fractures in particular is daily becoming larger and more important. Unfortunately, too few of us are sufficiently well prepared to successfully treat fractures. The laity and many doctors also, think that all we have to do is "set a fracture," apply a cast or splint and let "nature" do the rest. As long as we adhere to this axiom, our end results will continue to be bad.

The recognition and treatment of fractures have engaged the attention of medical practitioners in all ages. The axioms formulated and used during the earlier days of surgery held sway until Bardenheuer, Lucas—Champoniere and Lane noted that in a large proportion of cases deformity and loss of function resulted from an application of commonly accepted axioms of treatment.

Statistics of industrial insurance commissions confirmed these observations.

The modern methods aim at

- (1) a sufficiently perfect restoration of the form of the bone to allow a perfect joint action,
- (2) the preservation of the full vitality of the circulation and the neuromuscular apparatus. In order to obtain the above results a knowledge of each method of treatment is necessary and at times a combination of the good points in each is essential.

Bad end results may be attributed to (1) inadequate diagnosis and (2) inadequate treatment. Both of these factors can and should be eliminated. The first is the result of the traditional use of a term, Pott's fracture of Colles fracture, which is loosely applied and leads many who use it to expect that each of these fractures must always present the same clinical picture.

If we are to obtain better results, we must be more accurate in our terminology and be more exact in our examination.

One should not send patient for roentgen ray examinations before the physical examination has been made. If he does he will be disappointed because of the failure of the ray to show a fracture through an epiphyseal cartilage. Surgery should not be subservient to one of its handmaids. Human reason must ever direct artificial or physical measures.

A properly taken history and a systematic examination which consists of inspection, palpation, mensuration followed by a roentgen ray examina-

tion should, in all instances, establish a diagnosis.

We might just as well eliminate the so-called sprains if we want to obtain good results in injuries about joints.

The absence of deformity does not mean that there is not a fracture present. Manipulation for the purpose of obtaining crepitus prior to the giving of an anesthetic is not indicated and should not be resorted to.

This brings us to our second conclusion that poor end results are due to inadequate treatment.

Complete reduction cannot be obtained in most instances without relaxation obtained by anesthesia. Attempts without anesthesia are brutal.

Proper reduction is the most important object in the treatment of fractures. If we make no attempt to obtain accurate approximation of fragments the subsequent treatment will be valueless as far as perfect contour and good functional results are concerned. Good anatomical restitution of a broken bone results in better functional results than imperfect reconstruction and permits a shorter period of disability. All fractures should therefore be reduced under a general anesthetic if there are no contra-indications. The old axiom of waiting for the swelling to subside before an attempt is made at reduction should be discarded for we know that the callus-forming elements are most active immediately following the injury. Also because muscular contractures which in the beginning are only spasmodic later become real contractures which require greater force to overcome.

The patient is seen not later than twenty-four hours after reduction. At this time another roentgenogram is taken to determine whether the reduction is satisfactory. Continued pain after twenty-four hours is usually indicative of an incomplete reduction or of improperly applied splints. If the reduction is not satisfactory another attempt is made to better the position of the fragments. After several days the splints are removed, the extremity is given contrast baths (alternate hot and cold water) moderate superficial massage, and passive motion up to the point of pain. It is then baked and the splints re-applied. This treatment is repeated every two to three days. All dressings are removed at the end of four to five weeks. At this time the patient is instructed to use contrast baths twice daily, followed by resistive exercise.

Many bad anatomical results are finally followed by fairly good functional results. In most instances bad functional results are due to incomplete reduction. However, in a few cases poor functional results are due to adhesions and circulatory disturbances, the result of prolonged immobilization.

Early complete reduction, early superficial massage, with physical therapy and early immobilization will give a satisfactory functional result in the vast majority of fractures.

Dr. Muir Bradburn (New Orleans): Dr. Rand has given us valuable suggestions as to the management of fractures. He implies the necessity of treatment in these cases by those equipped by experience. Among the causes of prolonged disability he mentions the fact that general principles of treatment are not fully appreciated or are poorly carried out. I recall a case of a fracture of the shaft of the femur referred to us after it had been treated for weeks by skeletal traction; there was shortening and the bone fragments had been allowed to slough their way through the skin posteriorly. In this case the method was good but the application of it was evidently not fully comprehended.

Like Dr. Rand, I have had to review cases for insurance companies. In examining the records of compound fractures, it is annoying to have reported to us that the attending physician is waiting for the wound to heal before attempting to reduce the fracture. A few days ago I reviewed such a case, a supracondylar fracture of the femur in which the surgeon was waiting for the wound to heal. This report was received nearly three weeks after the injury, and we advised the insurance company to make provision for permanent disability. These supracondylar fractures are probably the most difficult to reduce. Ashurst reported only one satisfactory result in 6 cases. Waiting for the infection to clear up robs the patient of the little chance he might have had to obtain a functioning limb. In such a case, skeletal traction, through the tibia at the level of the tibial spine, as suggested by Böhler, would probably give the best results, the infection being treated and the fracture being reduced simultaneously. Excellent results are obtained in the usual type of fracture of the femur by Russell's method.

One fruitful source of disability of the hand is the fracture of the first phalanges of the fingers near the metacarpo-phalangeal joints. If these are treated with the fingers extended, union frequently occurs with marked angulation, which greatly interferes with the function not only of the injured finger but of the adjoining fingers. These fractures must be treated in flexion to avoid deformity. I mention this particularly because I have found this necessity emphasized in only one text.

Dr. Rand mentions the continued disuse of the injured limb as a cause of disability. We find bone atrophy with pain in these cases and it is difficult to persuade the ignorant laborer that active use of the limb will relieve the pain. In

leg and ankle cases we advise using Böhler's cast with iron heel.

The general principles stressed by Dr. Rand should be more widely emphasized and put into practice than they are today.

Dr. Guy A. Caldwell (Shreveport): Surgeons should be more familiar than they seem to be with the use of the caliper brace. This brace permits the leg to be dependent and so increases the circulation, while at the same time it takes the weight off the site of fracture in standing and walking. Without some type of fixation and support during convalescence when the callus is still soft, bowing is likely to occur, and this is particularly true when the fracture is transverse and in the mid-portion of the shaft of the femur.

Fractures in the transverse portion of the shaft of the humerus put up in plaster must be carefully watched. The muscles of the arm atrophy, the sling does not give enough support, and there is sometimes an actual separation of the fragments with complete non-union. The shoulder joint is notoriously difficult to immobilize and some other plan must be devised. In such cases I find it best to carry the weight of the cast and arm by an elastic webbing 2 or 3 inches wide which is buckled around the body and across the shoulder. This arrangement of the webbing forces the fragments together perfectly and is simply enough for anybody to use.

THE LOUISIANA CRIMINAL CODE RELATIVE TO THE FUNCTIONING OF THE STATE LUNACY COMMISSION.*

WILLIS P. BUTLER, M. D.

SHREVEPORT, LA.

In Louisiana the handling of our medico-legal cases of insanity and the operation of our Lunacy Commission under the criminal code, is giving both the legal and medical professions much concern. As at present operated, it is little less than a travesty on justice and common sense. I have observed cases in court, both before and after the adoption of the code, and I feel that we are far from a proper solution of the matter. In some respects, California has come nearer to a proper solution than any state of which I have knowledge.

The defense of insanity in criminal cases has presented, for generations, one of the

most difficult problems in the administration of law. We have the unfortunate spectacle of expert witness arrayed against expert witness, with the resultant loss of faith in them, and respect for them, by the public. Often times these experts devise fine spun theories upon which to base their conclusions. This conflicting, highly technical speculative and often biased testimony is offered to a lay jury to determine the defense's mental condition. Such a jury has no special experience or training in such matters, and a clever lawyer with the aid of designing experts will bring about such confusion and doubt in the mind of a jury that in all probability a wrong verdict will be reached.

Louisiana sought, but apparently in vain, to remedy this condition somewhat when she adopted the new criminal code of 1928, and established the Lunacy Commission. This law says in part: "Whenever insanity shall be relied upon either as a defense or as a reason for defendant's not being presently tried, such insanity shall be set up as a separate and special plea and shall be filed, tried, and disposed of prior to any trial of the plea of not guilty, and no evidence of insanity shall be admissible upon the trial of the plea of not guilty.

"Whenever any plea of insanity shall have been filed, the presiding judge shall at once notify in writing the Coroner of the Parish, the Superintendent of the Hospital for the Insane at Pineville, and the Superintendent of the Hospital for the Insane at Jackson. The said Coroner and the said Superintendents shall together form a Commission of Lunacy to inquire into the sanity of the accused; provided that each of said Superintendents may designate and require to act in his place on said Commission any competent physician.

"The Commissioners, as soon as practicable after said notification, shall meet at the parish seat, and proceed with investigation into the sanity of the accused, and, for that purpose, shall have the right of free access to him at all reasonable times and

*Read before the Louisiana State Medical Society, New Orleans, April 14-16, 1931.

shall have full power and authority to summon witnesses and to enforce their attendance.

"The findings of the Commission or of a majority of its members shall, upon being filed in court, constitute the report of the Commission of Lunacy. If said report be that the accused is presently insane, or was insane at the time of the commission of the crime, he shall forthwith be committed to the criminal ward of a hospital for the insane, there to remain until discharged in due course of law. But if the report be that the accused is presently sane and was sane at the time of the commission of the crime, the trial of the plea of insanity shall be proceeded with as provided in this chapter.

"Every plea of insanity shall be triable by the judge without a jury, or by a jury of five, or by a jury of twelve, according as the charge in the indictment is triable, and the same number of jurors concurring shall be necessary to a verdict on the charge in the indictment.

"If upon the trial of the plea of present insanity the judge or the jury, as the case may be, shall find that the defendant is presently insane, he shall be committed to the criminal ward of a hospital for the insane, there to await trial until such time as his reason shall have been restored; provided that the district attorney having charge of the prosecution, whenever he believes the defendant no longer insane, may have the question of insanity again determined in the same manner in which it was originally determined.

"If upon the trial of the plea of insanity as a defense, the judge or the jury, as the case may be, shall find that the defendant was insane at the time of the commission of the crime, he shall be committed to the criminal ward of a hospital for the insane, there to remain until discharged in due course of law; provided that no person committed under the provisions of this article shall be released otherwise than as pointed out in the next succeeding article. Whenever it shall be alleged that any person com-

mitted to a hospital because insane at the time of commission of the crime, has regained his reason, rule to show cause why such a person should not be released shall be taken upon and tried contradictorily with the district attorney of the parish from which such person shall have been committed, which rule shall be tried by the Judge, or by a jury of five, or by a jury of twelve, according as the charge in the indictment is triable, and the same number of jurors shall be necessary to the finding of sanity as would be necessary to a verdict on the charge of indictment.

"No ruling of the court made on the trial of any plea of insanity shall, before sentence, be reviewable by any other court, either under its appellate or supervisory powers."

I would call attention especially that there seems to be no provision for paying the expenses of the Commission, or the expenses of those selected by the Commission to serve in their places.

To show how this law works at times I might recall a case in Caddo. This man was accused of a crime and was placed in the parish jail. When his case was ready to be called for trial his attorneys filed a plea for an examination by the Lunacy Commission. Superintendents of the two institutions and the Coroner met in Shreveport and thoroughly examined the man, going into the case in every scientific way, having the advantage of laboratory analyses, physical examinations, neurological tests and everything that would go to make up a proper diagnosis. The Commission decided that the man was sane, and so reported to the court. When the case reached the court the question of insanity was then tried before a lay jury, and in a short time this jury of laymen decided that the man was insane, thereby overriding the opinion of the three medical men who had thoroughly studied the case, and he was committed to the criminal building at Jackson. Since being in the criminal insane department, efforts are being made to have him released.

This law acts to slow up justice. The defense lawyer can wait until the last minute when the case is called, a jury summoned, all witnesses present and then make application at this late minute to the court for an examination by the Lunacy Commission, which the court has to recognize, thereby postponing the case indefinitely until this procedure can be complied with, causing an added expense to the state and much loss of time to the jury, witnesses, and all others concerned. A case of this character happened in Caddo a few months ago.

A charge of insanity may come before one jury and another jury later may hear the case on matters of fact. There should be an endeavor to separate the issue of guilty from the issue of insanity. Investigations made by experts should be unbiased, and should be the guide to proper treatment, as well as possible punishment. It would seem best to try the case on its merits, then if advisable or desirable, study the mental phases of the case scientifically as a means of instituting proper treatment if the person is found insane.

If a law can be passed by legislature that will stand the test of the court as to its Constitutionality, it seems that a Constitutional amendment permitting the determination of the defendant's insanity by a board of impartial experts should be passed and the case disposed of according to their opinion. We should not countenance the determining of the defendant's mental condition by a lay jury. Under such a method, it is reasonable to believe that criminal insanity would be unrecognized by such a lay jury under the guidance and spell of an astute lawyer, the prisoner will be loosed upon a community; while a sane person, though perhaps somewhat abnormal or sub-normal, may be adjudged insane and be sent to an asylum by a lay jury. There may be those who are criminal, but who prefer going to a hospital for mental diseases rather than to a penitentiary, and will thereby play up to, or stage a demonstration before, a lay jury and accomplish their purpose.

Quoting from a recent editorial:

"Undoubtedly, there are criminal cases in which insanity may properly be pleaded. And to bar that defense altogether would be to work a manifest injustice.

"But the insanity plea should be made less easy of access to all classes of criminals. There is a growing conviction among some students of the problem that the power to pass upon the mental condition of an accused should be taken out of the hands of juries and placed exclusively in those of alienists, who would be afforded every opportunity for study and investigation, both before and after the trial. The present system calls for examinations by alienists, but juries must pass upon the fact of insanity. Any juries know very little about it. As one editor puts it, 'there is nothing in American jurisprudence that has less basis in reason than permitting trial juries to pass upon the sanity of killers.'

"Insanity pleas call for technical consideration and are quite beyond the general knowledge of the average juror. They are pleas based on fact and should not be submitted to uninformed judges who are guided either by sentiment or the lack of it."

This is a problem in which the medical profession of Louisiana should be vitally interested and should help to solve.

DISCUSSION.

Dr. C. S. Holbrook (New Orleans): This is a question that needs a great deal of attention by both the legal and medical fraternities. The situation at present is certainly not satisfactory. There are several reasons for this.

First, I would like to consider the lawyer's point of view of crime, and the physician's. The legal aspect of crime is often taken in the abstract and in the books are written down certain punishments for certain crimes irrespective of the type individual who commits the crime.

We, as physicians, always individualize our cases and there is no more reason to believe that a man must be either entirely responsible or entirely not responsible than there is to think that one is entirely well or one is dying. It is difficult to determine just when an individual is sick. I am speaking of general illness. When is an individual sick? Is he sick two or three days before

he develops all signs of a common cold, or is he sick when he has a temperature of 99°, or after he has had a chill and fever and a temperature of 103°? There is a gradual gradation between an individual being perfectly well and an individual being very ill. There is the same gradation in responsibility.

To hold a man either completely responsible or not responsible at all is a concept that is very difficult for a doctor to have, for it actually isn't that way. There are all grades of responsibility, but the legal profession doesn't see it and especially is that true in our present way of trying cases; that is, where there are two trials, the first to go into the matter of the responsibility of the criminal, and then the trials as to facts concerned with his guilt or innocence. A Lunacy Commission is appointed to determine whether he is responsible or not responsible. After that, as Dr. Butler points out, occurs the trial as to facts concerned with his guilt or innocence.

But it is very hard to say just what constitutes responsibility. This week I saw a patient in our own Parish prison here who on most of the tests for knowing right from wrong, and that sort of thing, we would consider responsible, but this individual had a mental age of eight or nine years. He didn't have any more intelligence than a child of eight or nine years. That person is certainly not fully responsible although he does know right from wrong and probably, to a certain extent, is responsible for his acts.

To hold such information from the jury that is trying this patient on facts, I believe is incorrect because he certainly should have different treatment than someone we considered fully responsible. We thought this man was not insane yet not fully responsible for his acts and gave this information to the judge for his guidance.

The Lunacy Commission as it exists today is, I believe, a very fair commission because it is composed of men with extensive experience, but I can see where grave difficulties might arise with a different personnel. Suppose the present superintendents should be replaced by men who have had no experience in mental and nervous diseases and they would be called upon to pass on the responsibility of an individual. That would not be a commission of experts like it is at the present time and might lead to serious error.

One of the things we need very much in our present legal machinery is an indeterminate sentence. These constitutional psychopathic patients of an inferior group like Dr. Roeling talked about today have certain mental handicaps and they are going to maintain them. If they go to a penitentiary for a few times, each time they get out they are worse. One of the things we believe is that these individuals should be sentenced with

an indeterminate sentence, like they are doing in a few of the states. Then they are allowed to leave only when there is some reason to believe that they will conduct themselves in a more acceptable way.

Our present chairman, Dr. Pierson, has had a great deal of experience in the writing of these laws and in the working of the law, and I would like to ask if he will not deviate a little from the rule and discuss this particular question.

Dr. D. L. Kerlin (Shreveport): I wish to thank Dr. Butler for bringing this subject before this body. I think it would be a very good idea if this subject was brought before the state meeting every year until we get some definite action on this problem.

It is a fact that the question of insanity trials has been a hotbed of discussion for generations, and in this modern date when the plan of treatment and the practice of neurology and psychiatry is on such a high plane, the fact that we have not improved very much in our insanity trials is a very discouraging condition.

Just recently, to give you an idea of how a lawyer feels about the insanity commission, I was asked by a lawyer in Shreveport to go into the question of the sanity or insanity of a patient. I asked him, "Have you requested an examination by the Lunacy Commission?"

He said, "No."

I said, "Well, why haven't you requested an examination by the Lunacy Commission and gone through the usual procedure?"

He said, "Well, the Lunacy Commission represents the state, I want you to represent my side of the question."

I said, "I have taken the stand in the last two or three years that I would not serve on a question of the sanity or insanity of a patient unless I was appointed by the court on the State Lunacy Commission, because the question of an expert testifying on one side and one on the other side became so disgusting after two or three experiences that I ceased, and I do not intend attempting it again." I feel sure this has been the experience of many of the other men who have been called upon to testify in these cases.

What is the solution of the problem? To my way of thinking, the only solution to this problem is proper legislation to take the question of the sanity or insanity of a patient entirely out of the hands of a jury. In other words, we as medical men would not tolerate having them pass on a man's physical condition; for instance, if he had heart disease or some other physical illness, we would not select a jury of, say, twelve men and have them pass on that man's condition.

I cannot see the logic or the sense of having twelve men on a jury pass upon a man's mental

condition because it is an illness the same as a physical condition is an illness.

It is my opinion, unless we take some definite action and have this question taken entirely out of the hands of a jury and placed in the hands of a commission, appointed by the proper authorities, we shall make very little progress in solving the problem. The commission would go into the case exhaustively studying it for several days if need be, then render a report, and that report should stand, thus disposing of the case definitely. As it is now, if the Commission renders a report and the patient is insane he is committed to an institution for the criminally insane. If he is declared sane the case goes to trial before a jury. This does not seem right. To my way of thinking, whether or not the Commission declares a man sane or insane, should end the matter so far as his sanity is concerned.

Dr. Glenn J. Smith (Jackson): I believe the time is rapidly passing, and ordinarily I would not have anything to say.

I have listened to Dr. Butler's paper with a great deal of interest and concern, and since I am a victim of the hardships of this criminal code, this very unsatisfactory, misinterpreted, misunderstood statute, is one reason I wish to say something at this time.

The superintendents of the state hospitals for the insane are ex-officio members of the State Lunacy Commission. There is no law which provides expenses incurred while attending these meetings. It requires too much time from the institutions which need close supervision.

I am sorry to note that many of the lawyers of the state usually have the examination at the convenience of lay people in bringing their clients to trial. That is perhaps a fair legal trick, but it is quite a hardship to this Commission. Besides making a mockery of the purposes of the statutes. If the opinion of the three alienists is that the criminal is sane, then a bob-tailed jury of five lawyers may say he is insane. I say this with some authority because I know our own legislature is in a frame of mind to make some changes. It doesn't take a lawyer to see the injustice of it as it stands, but to formulate an act that is justice to all concerned, I believe a committee composed of the best legal and medical talent of our state should be assembled and, not hurriedly, write a criminal code with some sense to it and offer it to our legislators for adoption. I am of the opinion that most any document gotten up will be better than the one we are working under at the present time.

I might say that a number of those interested, Dr. Pierson, Chairman of this section, was one of them, got together at the last meeting of the legislature and framed an act for adoption and

it did pass the House, but it got tied up in the famous filibuster that ended in the Senate and it never went through.

There was a brief submitted and argued before the Supreme Court last Friday attacking the constitutionality of the whole criminal code on the ground that it does not permit evidence upon insanity while trying the case upon its merits. Of course, we don't know what the courts will do but I don't think they will uphold this argument even though they know our criminal code is not the best, because it would go back the last two or three years and make it necessary to dig up all these cases who have been cleared and perhaps bring them to trial. They couldn't plead second jeopardy because they had never gone to the courts. Some of them have never gone any further than the Lunacy Commission. If this criminal code was declared unconstitutional of course it would bring all those fellows before the court again. I rather think the Supreme Court—this is only my opinion of course—would think it would be best for us to go on and make another law in the legislature which soon meets rather than reverse the last one and go over all this again.

We have had about seventy-five cases a year that nobody got any remuneration for. They failed to make any provision for expenses and the superintendents of these institutions have to serve with not even the expenses they incur being provided for. All of this opinion on these numerous criminal cases cost the state or the individual nothing. That is not fair to the other alienists over the state because it is in addition to the duties they already have and they are busy at their places of business. Another thing, it could be spread out some.

As an instance, in the Parish of Orleans, the two Superintendents of the State Hospitals and the coroner, have to pass upon all who plead insanity. The economic status of that is unfair. The personnel is unfair, and then we think the criminal code itself is wrong.

Dr. E. McC. Connelly (New Orleans): I think we all agree (it seems to be unanimous) that the present law is not only unsatisfactory but entirely inadequate to the situation.

I was interested to hear Dr. Butler's criticism in regard to the disagreement of medical experts in criminal cases. It is always rather amusing to me to hear lay criticism in regard to doctors. I don't know of any other type of cases in which doctors don't sometimes disagree, and I don't know of any other profession in which, sometimes, the members don't disagree. Certainly lawyers disagree.

As Dr. Holbrook pointed out, unfortunately it is a mighty hard matter to measure the exact

degree of illness, not only of mental diseases but of other diseases as well, so it would be rather peculiar if medical experts always agreed on a case, mental or otherwise, in fact it would be much stranger than the present situation and more open to criticism.

In regard to the law, it seems to me it is more or less a matter of trying to get something for nothing. It required men employed in other capacities to do the work without extra compensation or even expenses and leave their qualification for it to chance. It is merely a matter of luck if we have experts, as Dr. Holbrook spoke of, on this Commission. It is luck if the man who happens to be elected coroner knows anything about mental diseases for he is not required to. It is luck if the man who happens to be in charge of the state hospital knows anything about mental diseases, because, the law doesn't provide that he should. So, as a matter of fact, considering the circumstances, I think we get along fairly well because we have been lucky so far in the personnel of our Commissions. But we all agree that something ought to be done.

Some of the states have solved the problem by requiring all men accused of major crimes to be examined as to their mental condition before they are tried. This examination is done by a state commission appointed for that purpose and paid. The law requires that this commission be composed of trained men, and this seems to me the only feasible and practical way of handling the situation. Examine the man before his trial comes up. Let experts, absolutely non-partisan experts, pass on his mental condition and when they get through let it go at that.

Dr. Isham Kimbell (Alexandria): In listening to this discussion it is very apparent that you have a very unfortunate situation. It is also very apparent that there is much need for education along the lines of the proper handling of nervous and mental disorders.

I am afraid there is too much of the idea of the capture and control of the mental case. He is sick, just as much so as any of your other patients. Education of the public and a closer alignment of psychiatry with general medicine is one of the best solutions I know.

We have the moron. We have the constitutional psychopath. We have the constitutionally inferior individual. We have those who have never had a normal intelligence, those who are deficient in their intellectual, their moral and their emotional spheres. We have the constitutional psychopathic personality, the man who is deficient not so much in his intellectual sphere as he is in his moral and emotional spheres. Then we have the frank psychotics, the schizophrenics, the manic depressives and the organic psychoses,

and we are going to continue to have these cases. We are going to have to deal with them humanely and legally until psychiatry and mental hygiene, functioning as a part of the public health program, do something to reduce the number.

Dr. Clarence Pierson (Pineville): I feel, gentlemen, it would possibly be appropriate if I say something on this subject myself having had a good deal of experience in this particular line.

This subject is not one alone that is agitating the minds of Louisiana but is one being discussed throughout the confines of the United States, and I might say of Europe and of the entire civilized world. What atmosphere should handle the truant, as Dr. Kimbell has so properly said a minute ago?

The great trouble with our situation today is, due to the fact, as said by Dr. Kerlin and so wonderfully brought out a few years ago in the celebrated Thaw case, is whether a man is insane or not; not so much that, but whether or not you can get a mental specialist and pay him to say he is insane. That was the problem at that time.

Dr. Kerlin has said that he has ceased to take cases unless he can give his unbiased, fair, square medical opinion on the case. If every man in Louisiana who practices medicine did the same thing today there would be no difficulty.

I grant, however, that we all differ in our opinions, as Dr. Connely said. Dr. Holbrook just covered that point beautifully by the degrees of illness.

It is like the old darkey who was charged with stealing a hog. It was during the reconstruction days. They had a splendid jury. The defense came up and offered its testimony, after the prosecution made a wonderful case, showing every detail. It was a case of circumstantial evidence and the jury brought in a verdict of not guilty.

They said to Mose, "That is a remarkable jury. They heard the testimony that you had your friends give, and you admitted on the stand that you stole the hog. What is the explanation of that jury's verdict?"

He said, "Friends, dey all got a piece of de hog."

That is the trouble with our trial of cases today. They all got a piece of the hog. I have had some experience along that line. I have been in this work for twenty-seven years. I can say without hesitation that I never permitted myself to give one piece of testimony, whether from my conscience, my judgment, or my medical knowledge, that I didn't believe was right. In consequence of that I have never received any fees. I have served on hundreds and hundreds of cases and have done the best I could. I have gotten all the facts and weighed every feature and phase of the case. I said whether the patint was, or was not, insane, according to my judgment, not only insane,

but responsible for the act, not alone at the time of the commitment of the act, but at the present time also.

This Louisiana law has been a farce, not due however, to the medical profession since it was an effort to arrive at some fixed basic principle upon which society would be better protected. Before the law was in vogue, the gentlemen composing the Lunacy Commissions, when they were appointed by the courts selecting them, happened to be the heads of the state institutions, effected compromises with the prosecution and the defense lawyers by which the accused would go to the criminal department of the insane of the state of Louisiana, which happened to be at Jackson. That departure was established there years ago with the same effort and desire to improve old conditions, to improve our social fabric along those lines and to give justice to everybody. These cases were sent there by common consent, not by law, before this law was passed.

These cases were kept under very splendid observation for thirty or forty days in the criminal department, enjoying the benefit of an honest staff, many of whom were capable but some possibly not as capable as others. The very best laboratory facilities were enjoyed. Every possible bit of testimony was procured. The family furnished all its evidence. It was an unbiased, unpartisan body, and after the termination of these or forty days the report was handed in to this judge, he himself having agreed to this compromise, and the case was presented there.

We did not take away from that man his constitutional rights. That is the great question in the United States. We are talking about our present law. You can't avoid two trials. That is a cardinal principle of our American form of government. Every man is entitled to a just trial, fair and square dealings, and his case shall be determined by a set of compeers of his fellow citizens.

In the effort to make this law several went before the legislation, and designated the heads of the three state institutions. I grant that they may be politicians, but they can't always be politicians. The medical profession ought to elevate these positions. This is all educational, as Dr. Kimbell says, but there should be a requirement that the head of the institution shall have certain qualifications before he can enjoy the privileges of the headship of that institution.

Granting those men are honest and capable, naturally they should be the men, but not only those medical men ought to pass upon a man, but you also have the benefit of the strongest aggregation of professional people of this state. Those men are not selected because of any certain influence or because of any certain power,

or because of any pull, or because of voting for this, that, or the other man. I can say that in my twenty-five years' experience I have never had an official yet say "Put this man on the payroll." I can say it truthfully.

As Dr. Connelly says, the other states have gone to the basic principle of the subject, to the foundation, to the root of it. What is it? To give a man his constitutional right. The state of Massachusetts has done that. I am familiar with this law. They have a state Lunacy Commission paid by the state. You have to begin at the bottom and come up. I would rather, if possible, have a Lunacy Commission domiciled in the city of New Orleans, made up of a different personad but you can't always get a law as you want it. We didn't at first get a criminal department at Jackson as we wanted it.

We didn't at first spend \$300,000; we only spent \$40,000. We had a Criminal law before we had a place. We got the law, and I had to get the Attorney-General to give me his opinion not to take the criminals until sufficient money was provided. The legislators in trying to carry out these ideas, the legal men in the profession, honest men, men who have had broad experience, four being ex-district attorneys in the body, said, "Gentlemen, you don't go far enough in your recommendations. Make the Lunacy Commission's report final." I knew then they were getting into deep water. I knew they were making a mistake. I knew the Supreme Court would pass up the new law, and the Supreme Court declared it unconstitutional, and in consequence the present law is a makeshift as the result of this unconstitutionality.

In lieu of a state Lunacy Commission, which I heartily favor, if we are to have that law as originally intended, we must send the insane criminals to the institutions with the best facilities, the best staffs, the most qualified men, and keep them under observation. Too often the plea of insanity has been made by shyster lawyers of bus chasers, and by those in that kind of business. They laugh at us and tell us that we only did that for a play of time until we got our fees fixed. Some attorneys with clients living in other states haven't their fees fixed yet.

A man or woman committing a grave crime should, as Dr. Connely has said, be examined immediately after the crime before they get a chance to do their slick, fine work on the outside with the witnesses. When you get fair and square intelligent information, questions and answers from the family, as we are frequently able to get, you make that report unbiased immediately after the commitment of a grave crime and you seal it away, and the man later has his right as a constitutional privilege to be tried by jury.

NEW ORLEANS

Medical and Surgical Journal

Established 1844

Published by the Louisiana State Medical Society under the jurisdiction of the following named Journal Committee:

S. C. Barrow, M. D., *Ex-Officio*

For one year: W. H. Seemann, M. D.,

Randolph Lyons, M. D., Secretary

For two years: John A. Lanford, M. D.

For three years: S. M. Blackshear, M. D.,

H. W. Kostmayer, M. D., Chairman.

EDITORIAL STAFF

John H. Musser, M. D. *Editor-in-Chief*

Leon S. Lippincott, M. D. *Editor*

Willard R. Wirth, M. D. *Editor*

H. Theodore Simon, M. D. *Associate Editor*

G. C. Anderson, M. D. *Associate Editor*

D. W. Jones, M. D. *Associate Editor*

Jacob S. Ullman, M. D. *Associate Editor*

COLLABORATORS—COUNCILORS

For Louisiana

H. E. Bernadas, M. D.

Daniel N. Silverman, M. D.

C. C. DeGravelles, M. D.

J. B. Benton, M. D.

C. P. Gray, M. D.

J. H. Slaughter, M. D.

D. C. Iles, M. D.

J. H. Landrum, M. D.

For Mississippi

J. W. Lucas, M. D.

L. L. Minor, M. D.

M. W. Robertson, M. D.

Thomas J. Brown, M. D.

Willie H. Watson, M. D.

W. G. Gill, M. D.

Jos. E. Green, M. D.

J. W. D. Dicks, M. D.

D. J. Williams, M. D.

Paul T. Talbot, M. D. *General Manager*
1430 Tulane Avenue

SUBSCRIPTION TERMS: \$3.00 per year in advance, postage paid, for the United States; \$3.50 per year for all foreign countries belonging to the Postal Union.

News material for publication should be received not later than the twentieth of the month preceding publication. Orders for reprints must be sent in duplicate when returning galley proof.

THE JOURNAL does not hold itself responsible for statements made by any contributor.

Manuscripts should be addressed to the Editor, 1430 Tulane Avenue, New Orleans, La.

DIPHTHERIA IMMUNIZATION.

It hardly seems necessary to comment editorially upon the importance of the first three papers in this issue. It should be obvious to the thinking practitioner that the profession as a whole should be sufficiently well acquainted with the splendid results that have been achieved throughout the United States in immunizing children against diphtheria. In cities where active campaigns have been carried out to take this particular prophylactic measure the results have been almost phenomenal. Such a campaign has been started in New Orleans; a campaign which was inaugurated at the

meeting of the Orleans Parish Medical Society under most auspicious circumstances, and a campaign that will be continued not as campaigns usually are for only a short period but continuously throughout the year.

The physicians of New Orleans have been made acquainted with the importance and the practicability of preventing diphtheria among children. The City Board of Health is prepared to immunize all children of school age, but the real important immunization of the small child of pre-school age can only be carried out by the practitioner of his community.

This campaign has been started in New Orleans. Is it not the wise and sensible thing to carry it out throughout the State as well as in the City? The time can not be far distant when the occurrence of diphtheria in a child will cast a serious reflection upon the physician whose family from which this child came are his patients. Practically every important pediatrician in New Orleans at the recent meeting of the local Society attested to the value of the use of toxoid or toxin anti-toxin in the prevention of diphtheria. Those who are not pediatricians certainly can accept the word of those men that are handling in the homes, in the hospitals, and the clinics large numbers of children patients, that toxoid will prevent diphtheria in a great majority of instances.

THE COMING MEETING OF
THE AMERICAN MEDICAL
ASSOCIATION.

It will only be a period of five or six weeks from the time of appearance of this editorial until the meeting of the American Medical Association which will be held in New Orleans the second week in May. It seems particularly fitting, therefore, that the Journal again should call attention to the practitioners of Louisiana and Mississippi to the necessity of so arranging their professional affairs that it will be possible for them to attend this, the greatest of all medical meetings. As far as we can see it would

only be under the most exceptional circumstances that the doctors in the vicinity of New Orleans should be prevented from attending the annual convocation of the American Medical Association. In New Orleans will be congregated many thousands of physicians from all over the country. The leaders in medicine will be here in large number. Papers and scientific exhibits, clinics and demonstrations will be given in such concentrated form that literally a man can almost obtain a year's education in a week. In addition to the scientific features of the meeting it must not be forgotten that certain social events also will add pleasure to the program.

We invite those who read this editorial to take to their homes this particular number of the Journal. In the Louisiana Section will be found the program that has been arranged for the entertainment and for the enjoyment of visiting ladies. If this program is presented to the wife of a physician hesitating about coming himself to the City and doubtful about the advisability of bringing along his help-mate and co-worker, we are confident that when she reads all that is going to be done for her entertainment by the Woman's Auxiliary to the Orleans Parish Medical Society that additional pressure will be brought upon the hesitant member to come to the meeting.

JAMES BIRNEY GUTHRIE.

The medical profession in the City of New Orleans was greatly shocked to hear of the death of James Birney Guthrie. Apparently in full vigor of activity and health, Dr. Guthrie was taken ill and died after a very short illness on the eighth of March.

Guthrie was one of the best known practitioners of medicine in the City of New Orleans and the State of Louisiana. Graduating from the Tulane University Medical School in 1900, he soon made himself felt in medical circles in the City. A man of really tremendous energy, with a brilliant mind, facile and always alert, he rapidly became one of the young medical practition-

ers of note. Because of his brilliancy of thought and his forcible way of expressing his opinions and ideas he became one of the best known of the junior group of teachers in the Tulane Medical School. His progress in the school was rapid and ultimately he became Professor of Clinical Medicine, holding this position for some years and only leaving when he was called to the Chair of Medicine in the new Louisiana State University Medical Center. In the new school Guthrie had but brief opportunity of making his influence felt upon the student group and of incorporating his pedagogic ideas. A splendid beginning was made, however, and undoubtedly his influence, in spite of the few months that he was connected with the school, will survive.

Guthrie held many positions in organized medicine. In 1928 he became President of the Orleans Parish Medical Society, where his vigorous personality and his commanding presence made him an exceptional presiding officer. At the time of his death in addition to his position at the head of the Department of Medicine in the Louisiana State School, he was also on the Staff of the Charity Hospital, of the Touro Infirmary, of Hotel Dieu, and was a Fellow of the American College of Physicians.

Besides the various positions that Guthrie held in the medical world, after a brilliant and distinguished service in the World War in France he became most active in the Medical Officers' Reserve Corps, holding the high rank of Colonel in this organization when he died. He was also a contributor to medical literature, and had made many studies of clinical interest and importance, which were reported in this and other medical journals.

The ways of fate are hard to comprehend. Here was a man seemingly at the acme of physical vigor; tireless and never worn by fatigue; a man who apparently had many years of fruitful life before him; a man who had just obtained a new position of dignity and honor, and yet out of a clear sky was abruptly cut down by the grim reaper.

HOSPITAL STAFF TRANSACTIONS

CHARITY HOSPITAL MEDICAL STAFF MEETING.

The regular meeting of the Charity Hospital Medical Section was held February 16, 1932, with Dr. Walter Durel in the chair. Under interesting cases, Dr. Durel first reported a death, probably due to air embolism, following artificial pneumothorax. This was the first such death in his experience in the past fifteen years. There was no autopsy of the case. Dr. Durel spoke of the potential danger of the procedure and emphasized the fact that this unusual complication of air embolism stressed the point that one should be very careful and properly trained in using the procedure of pneumothorax.

Dr. N. Thiberge presented a group of allergic patients, demonstrating the procedure of passive susceptibility. The procedure was used in determining a young man's susceptibility to allergic substances by transferring his susceptibility to his mother. Serum of the patient was used to prepare localized areas of the mother's skin, which were then tested. The son's skin could not be tested, because of a widespread eczema. Dr. Thiberge then showed four cases who had been receiving histamine hydrochloride, 1-1000 solution, in the treatment of asthma. He has treated fifty such cases and reports thirty-five of these improved. He has given over 500 injections. The usual dose is from 1/10 to 5/10 c. c. of a 1-1000 solution of histamine hydrochloride. He stated that he hoped to be able to further report on the results of the use of this drug in the treatment of asthma and hay fever.

Dr. J. G. Stulb presented a case of cerebrospinal meningitis in a colored male infant one and one-half years of age. This case had received 185 c.c. of serum in the course of treatment, and was presented to the meeting cured with no residual except loss of hearing. Dr. Charles Bloom, in discussing the presentation, emphasized the importance of early diagnosis. He also mentioned the apparent rarity of epidemic meningitis in private practice. Dr. Musser stated that this case presented by Dr. Stulb was the second one with a residual of deafness in a total of 70 cases.

Four cases of secondary syphilis, with skin eruptions, were shown by Dr. Stulb. There were two negro males, a negro female, and a young white female. The young white female was particularly interesting in that she showed a typical condyloma in the left axilla.

The next case, a white male, was presented by Dr. Barton. This patient had been admitted to the hospital complaining of pain over the precordium radiating down to the crest of the ileum and up to the apex of the chest. This had begun five months previous, rather sudden in onset. Since

that time the patient had been almost constantly in bed. In the previous two months there had been a loss of fifteen pounds in weight. There was no dyspnea, no loss of appetite, and no urinary symptoms. There was a hacking cough and only recently a slight amount of expectoration. The patient was emaciated, and when admitted was groaning with pain. Blood pressure had been systolic 94, diastolic 60, with no cardiac enlargement. Pulse rate had ranged between 65 to 70, regular in rhythm. The examination of the lungs showed dullness of the left lung anteriorly down to the fourth rib and posteriorly down to the fourth dorsal vertebrae. There was an absence of breath sounds over this area. On the right there was a definite area of dullness in the second and third interspaces extending to the left of the midline. Posteriorly, there was an impairment of resonance over the right lung also. The Wassermann reaction was negative and the blood count showed a secondary anemia. Roentgenograms, described by Dr. Granger, showed an enlarged aorta, and an infiltration or consolidation of the left lung, which was interpreted as either being a primary malignancy of the lung or a syphilitic involvement. Dr. Musser discussed the case and suggested the possibility of the case being one of tuberculosis. Since the patient was now expectorating, advisability of an examination of the sputum was suggested. Dr. Durel agreed with the suggested diagnosis of Dr. Musser and recommended a tuberculin skin test to help clarify the diagnosis. Dr. Chaille Jamison suggested a lung puncture be done with a large caliber needle in an endeavor to remove a small amount of tissue for pathological examination in an attempt to substantiate the diagnosis of primary malignancy.

Several cases with autopsy findings were then presented by the secretary. Two cases of typhoid fever with intestinal perforation were particularly interesting in that they brought up a point for discussion. The question was as to the advisability of surgical intervention on such typhoid intestinal perforations. Several of those present argued that usually the patient was so ill and the condition usually of such long duration when recognized that surgical intervention was always fatal. Others stated that if promptly recognized, when possible, surgical intervention with attention to the perforation was the only salvation of the patient.

Willard R. Wirth, M. D.

SURGICAL STAFF OF CHARITY HOSPITAL.

The Surgical Staff of Charity Hospital held its regular monthly meeting on March 16 at 8:00 p. m., in the Nurses' Auditorium. The meeting was called to order by Dr. I. M. Gage, chairman.

The minutes of the previous meeting were read and approved. There was no old or unfinished business, nor any committee reports to be heard. Under the head of new business the chairman announced that Dr. Fred L. Fenno, chairman of the Committee on Finances, of the coming meeting of the American Medical Association, designated Dr. O. C. Cassegrain to receive donations for the Entertainment Fund. The chairman discussed the question of treatment by radiation with both deep roentgen ray therapy and radium of patients suffering with all types of malignancies, and felt that a committee should be appointed to tabulate the results of treatment and report to the staff once or twice a year. Dr. C. Jeff Miller suggested that a resume be made of the dosage of both roentgen ray and radium in different types of lesions as used in the larger clinics about the country. Dr. Granger, chief of the Division of Radiology, stated that the present apparatus is calibrated in international R units, and the treatment is being given according to the charts prepared by McKee. Complete records of all cases are kept in the department. With regard to the calibration of radium, he thought it might be necessary to send the present supply to the Bureau of Standards before this could be done. It was moved and seconded that such a committee be appointed. There being no further business, the meeting passed to scientific session, and the following cases were considered:

Case 1. Colored female, aged 40 years; admitted February 3, operated on February 6, died February 12. Diagnosis—placenta praevia with vaginal bleeding. Last menses May 25, 1931. Due March 19, 1932. Two weeks before admission suddenly began to bleed. Blood ran down leg and formed pool on floor. Passed large clots with pains and cramps. Nine previous pregnancies. One, 2, 3, 5, 6 and 7 were all normal. Four and 8 terminated at 4 and 6 months, respectively. On February 6 under spinal analgesia was delivered, placenta presenting in vagina. Version and extraction with forceps on after coming head. Extensive tear with free hemorrhage was repaired. Infusion of 1000 c.c.'s of normal saline and 5 per cent glucose was given, followed shortly by 500 c.c. of blood. Six days after operation she suddenly began bleeding again, was packed and infused. Two transfusions were given and all usual treatment against hemorrhage and shock. Nevertheless she died that same day. No autopsy was permitted. Case discussed by Dr. Stadium and Dr. E. L. King.

Case 2. White female, aged 69 years; admitted January 25, operated upon January 30, died March 18. Prolapse of uterus. The uterus was protruding from vagina and was ulcerated. Vaginal hysterectomy was done under spinal analgesia. Patient failed to react satisfactorily, remained drowsy, complained of pain in the abdo-

men. She had first retention and later incontinence of urine. No autopsy was permitted.

Case 3. White female, aged 20 years; admitted January 15, operated upon January 15, died February 3. Acute appendicitis, syphilis. Pain in right lower quadrant for three years. Nausea and vomiting for three weeks. No appetite. Very tender over McBurney's point. Urine showed four or five pus cells per field with no casts. Leukocytes 11,600, neutrophils 85 per cent. Blood Wassermann 4 plus. Appendectomy performed. Cystitis and pyelitis developed and patient died 19 days after operation. No autopsy permitted. Discussed by Drs. Moss and Rives.

Case 4. Colored male, aged 62 years; admitted January 29; died February 8. Diagnosis—arteriosclerosis, heart disease, auricular fibrillation, right indirect inguinal hernia, contusion of right chest—right hydrothorax, chronic nephritis without edema, polyp of rectum, senile dementia. Was brought to the hospital after having been struck by a street car. 1200 c.c. of foul whitish fluid was aspirated from his chest. Showed staphylococcus and colon bacillus. Failed to improve and died on February 8. Autopsy showed empyema of right side with lung collapse and broncho-pneumonia, chronic nephritis and a tumor of the left kidney, which was a papillomatous growth of benign character. Autopsy presented by Dr. Von Haam.

Case 5. White female, aged 46 years; admitted January 4, operated upon January 25 and February 12, died February 13. Complaint of pain of back and abdomen. Had cholecystectomy and appendectomy under spinal analgesia. Eight days after operation temperature rose and radiographs showed elevation of the right leaf of the diaphragm, a sub-diaphragmatic infected hematoma. Was drained and pus was expired from the sub-hepatic space. Died the following day. No autopsy was permitted.

Case 6. Colored female, aged 42 years; admitted February 10, operated upon February 16, died February 24. Complained of swelling of the abdomen. Fourteen years ago was operated upon for tumor and pus tubes. Six years ago she noticed tumor in the abdomen the size of an orange, not painful. Has very frequent menstruation. The entire lower abdomen was filled with masses. Hysterectomy was performed. The operation was difficult as the fibroid was a mucilaginous growth adherent to omentum, transverse and descending colon. One large growth impacted in the pelvis was adherent to the sigmoid and peritoneum of the cul-de-sac. On the twentieth she developed a profuse and foul smelling diarrhea with temperature of 99-104, and died 4 days later. Autopsy showed a general peritonitis with gangrene of the sigmoid. Discussed by Drs. Tyrone, C. J. Miller, Moss, Loria, and Van Haam. The autopsy was presented by Dr. Connell.

Case 7. Colored female, aged 38 years; admitted January 26, operated upon February 9, died February 16. Diagnosis—mild hypertention, syphilis, uterine fibroids, chronic cervicitis, chronic pelvic inflammatory disease, ventral hernia, acute appendicitis. Under spinal analgesia had super vaginal hysterectomy, bi-lateral salpingo-oophorectomy, appendectomy, and repair of umbilical hernia. On thirteenth she developed fever, with nausea and vomiting, which became worse in spite of all the corrective measures until death on the sixteenth. No autopsy was performed, but cause of death was considered to be paralytic ileus. Discussed by Dr. Connell.

Case 8. White female, aged 69 years; admitted February 12, operated upon February 16 and February 23, died February 26. Tumor of the right breast—duration one year. Now has a small nodule, freely movable. On the sixteenth under gas anesthesia tumor was removed, wound closed with rubber tissue drain and the patient made rapid recovery. The Pathological Department reported carcinoma, and on the twenty-third a radical excision was done. Patient died three days later of pneumonia. This case was discussed by Drs. Rives, Loria and Tardo.

Case 9. Colored female, aged 34 years; admitted January 20, operated upon January 28, died February 17. Admission diagnosis—gumma of the vulva, with secondary infection. Hypotention and secondary anemia. Clinically the lesion appeared to be gumma, but after repeated blood Wassermann tests were reported negative a bi-autopsy was done, which showed squamous cell carcinoma. The condition was not considered operable. The patient died on the seventeenth.

There being no further business the meeting adjourned.

Gilbert C. Anderson, M. D.

HOTEL DIEU.

The regular monthly meeting of Hotel Dieu Staff was held on February 15, 1932, with forty-three members present, with the Vice-President, Dr. P. L. Thibaut, in the chair, and the Secretary, Dr. J. E. Isaacson at the desk.

The scientific program comprised: A paper by Dr. M. O. Miller on "Carcinoma of the Gastro-Intestinal Canal," in which the statistics, symptomatology and treatment were thoroughly reviewed, stress being laid on early operation if possible, and the early signs leading to diagnosis.

Dr. A. L. Levin mentioned several cases of gastric carcinoma in young individuals from 22 to 38, giving as main symptoms loss of weight, anemia and positive occult blood. Carcinoma, he said, will sometimes develop on the base of an old ulcer and hydrochloric acid will be present—normal, slightly above normal, or even high. He described the Willie Meyer acidosis treatment of carcinoma, which has been successful in Germany.

Dr. D. N. Silverman stated that it is possible for carcinoma to develop upon the site of an ulcer, but this has not been proved experimentally nor by statistics. He said that normal or hyperacidity is associated with carcinoma because the gland cells that create hydrochloric acid are not involved when the malignant growth is limited to the antrum of the stomach; if that growth extends into the fundus, a suppression of hydrochloric acid begins.

Dr. J. E. Landry quoted statistics to show that many cases labelled inoperable may be saved by a little tedious work, and recommended spinal anesthetic for this purpose.

Dr. Maurice Courlet corroborated the infrequency of cancer of the entire small intestine and suggested that the cure for general carcinoma may be found along the line of imitating metabolic processes existing in the gastro-intestinal canal, since there is something inhospitable there to cancer growth.

Dr. Aldea Maher explained the application of the Glucose Tolerance Test for Gastro-Intestinal Malignancy (Friedenwald and Groove). If carcinoma is present anywhere from the mouth to the anus, there will be an elevated blood sugar curve—that is, at the end of two hours the blood sugar usually does not go back to the normal level. This curve is usually higher in carcinoma of stomach and liver. Only carcinoma gives this curve; sarcoma gives no elevation. Of course, other conditions must be considered, such as diabetes, hyperendocrine disturbances, especially hyperthyroidism, pathological changes in the liver, emotional disturbances and chronic infections along the gastro-intestinal tract.

During ten years of laboratory experience with Friedenwald and Groove curves, every case of suspected carcinoma of the gastro-intestinal tract coincided with clinical findings except two, one a carcinoma of the rectum, and the other an adenoma of the cardiac end of the stomach.

The second part of the scientific program consisted of a report of a case of endothelioma of the pleura by Dr. I. Tedesco, to demonstrate the value of needle puncture in tissue diagnosis. The patient, a farmer, aged 62, came in with severe headache, pain in the limbs and lower back, severe coughing, chills and fever, following a cold contracted two weeks previously. There was slight retraction of ribs in the right axillary space, with slight distention at base of right lung posteriorly, fremitus much diminished and no respiratory sounds at base of right lung.

Patient was treated for acute pleuritis; the fever subsided after nine days and he felt much better, but he had a daily rise of temperature between 1 and 4 p. m., followed by profuse perspiration, but no pain. Roentgen ray showed signs of pleural effusion. Aspiration was done without result. A second roentgen ray showed no change. Then the needle puncture was done, and the min-

ute particles examined under the microscope showed endothelioma (malignant) of the pleura.

Dr. Lucien Fortier had seen this patient with Dr. Tedesca. He added that patient is now receiving deep roentgen ray therapy, but results are doubtful.

Dr. Maurice Couret exhibited microscopic slides of the tissue. He explained that the sputum had not been examined; expectorated tissue is so necrosed and mixed with micro-organisms that diagnosis is usually impossible by that means. A rather coarse needle is used and only a small piece of tissue is required. Of course, needling is not necessary or advisable for all kinds of tumors. Dr. Couret recommended, where possible, the removing of the pathological tissue entirely and having a rush section made for diagnosis. Where malignancy appears definitely established, he advised removing the neighboring glands first and the tumor afterward.

This type of carcinoma (of the pleura) is not likely to metastasize farther than the neighboring lymph nodes; but sooner or later the cells break down, cachexia will develop, and death follows from the intercurrent conditions usual in malignancy.

Dr. A. L. Levin described a case of sudden high temperature with hemoptysis, accompanied by collapse of the left lung. Bronchoscopy revealed, in the left bronchus, a clot of blood under which the mucous membrane was degenerated. The pathological report was malignancy of the lung. There has since been evidence of metastasis to the brain. Dr. Levin inquired if bronchoscopic examination would not be as effective as needle puncture.

Dr. S. C. Jamison spoke in defense of needle puncture in cases of true tumors of the lung, which occur less frequently than bronchogenic tumors. With the latter, the first sign comes from obstruction of the bronchus, and the physical signs are connected more with the collapse of the lung and the bronchus than with a change in the lung substance itself. It is an established fact that all tumors of the lung metastasize primarily to the brain and death is imminent.

Dr. Homer Dupuy mentioned the difficulty of getting into a small bronchus to diagnose.

Dr. Tedesco, in closing, stressed the point that the patient had not suffered with the right lung for forty-three years after the first signs of trouble.

The executive session followed, after which the meeting was adjourned.

VICKSBURG HOSPITAL.

Staff Meeting, February 11, 1932.

1. The meeting was called to order at 6:30 p. m., by the President, Dr. G. P. Sanderson, Drs. I. C. Knox, W. G. Weston, W. H. Parsons, E. H. Jones and W. E. Akin being present.

2. Minutes of the preceding meeting read and adopted without change.

3. The medical and surgical reports were discussed freely. There were two surgical deaths and no infections.

4. Election of officers: Dr. W. G. Weston was elected President; Dr. E. H. Jones, Vice-President, and Dr. W. E. Akin, re-elected Secretary.

5. Scientific program was presented as outlined.

6. Refreshments served and meeting adjourned. Staff Meeting, March 10, 1932.

1. The meeting was called to order by the President, Dr. W. G. Weston, at 6:30 p. m., Drs. I. C. Knox, W. H. Parsons, G. P. Sanderson, R. E. Cutts and W. E. Akin being present.

2. Minutes of the preceding meeting read and adopted without change.

3. The medical and surgical reports were discussed freely. No deaths during the past month and no infections.

4. Dr. R. E. Cutts of the Vicksburg Clinic was elected a member of the hospital staff.

5. Scientific program was presented as outlined.

6. Reports on current literature by Dr. I. C. Knox with free discussion by the staff.

7. Refreshments served and the meeting adjourned.

Abstract.—Tularemia.—Dr. I. C. Knox.

By tularemia we mean an infectious disease caused by the *Bacterium tularense*. McCoy and Chopin in 1912, gave the name tularemia to this organism, because of the fact that the ground squirrels in Tulare county, in California, were greatly infected with this disease. *Bacterium tularense* is a small organism, gram negative, non-motile and non-spore bearing. It grows only under aerobic conditions. Temperature of 56° to 58° centigrade will kill the organism, as well as the ordinary reliable disinfectants.

It seems that within the past two years this disease has become recognized in every state in our country. It is transmitted among wild animals, supposedly by blood-sucking insects, such as lice, fleas, ticks and flies. High susceptibility is noted in man, ground squirrel, rabbit, guinea pig, mouse, wood chuck, opossums, goats, quail and grouse.

There is a slight susceptibility in cats, sheep and goats. Horses, cattle, dogs, fox, hogs, pigeons and chickens do not seem to be affected. The initial lesion is a small papule which is followed by an ulcer of more or less irregular shape and size. Due to the fact that in our neighborhood these cases are usually caused by the skinning of rabbits naturally the primary lesion is on the fingers or hands. These primary lesions are followed by enlargement of the regional lymph glands, which are markedly enlarged and very tender. Of the four clinical types, the ulcer-

glandular type is the most common. The other types are the oculo-glandular type, the glandular and the typhoid type have been described. There has never been proved an instance where the spread of infection was from man to man, but always from the lower animals to man or by the bite of an insect.

Symptoms in the ulceroglandular type: Patient complains usually within 48 hours after the onset. There is pain usually in the glands adjacent to or near the site of infection. There may be a longer or shorter period for the pain to appear as the incubating period is from one to ten days, but the average time is about three days. In the severe type the onset may be somewhat sudden, accompanied by headache, vomiting, dizziness, chilliness and aching of the body. There may be slight fever. Usually about 24 hours later the patient will notice a swollen, inflamed papule, which will soon break down and leave an ulcer, irregular in shape and somewhat red at edges, with a punched out appearance, necrotic in center. In a great many cases the lymph glands suppurate and have to be drained.

Case report: E. E.—Male, 28 years of age, single, occupation railroad employee, has been doing some work in clothing stores and recently farming. Family history: Irrelevant. Past history: No serious past illness; one attack of influenza. Tonsillitis. No operations. Uses tobacco. Smokes cigarettes. Drinks freely at times. Denies venereal infection. G. I.: Negative. Respiration: With exception as noted above, negative. Physical examination showed a small statured adult white male. Head and neck were negative. Oral hygiene was good. No enlargement of the cervical glands. No enlargement of the thyroid. Chest: Heart normal in outline, contour and rhythm normal. Lungs: Normal vesicular breathing throughout; lungs expanded equally and normally. Left axillia showed an enlarged gland that was red, swollen and tender to pressure. Left epitrochlears were slightly enlarged; tender to pressure. Tenderness along the lymphatics leading from the epitrochlears up toward the axillary glands and some soreness below the elbow. On the left forefinger there was a fairly large ulcer, which at this time has broken down. The edges were slightly elevated and there was some necrotic tissue at the base. Finger was swollen. The right upper limb was negative. Abdomen, liver, spleen, not palpable. No tenderness to pressure. No masses or tumors noted. No tenderness over the kidneys. Genitalia: Negative. Lower extremities negative. Urinalysis, negative. Blood: White count—11,400; differential, 69 polys and 13 bandforms. Agglutination test for undulant fever, negative. Agglutination test for tularemia, complete agglutination in titre of 1-810, positive. Blood Wassermann, negative.

VICKSBURG SANITARIUM.

The regular monthly meeting of the staff of the Vicksburg Sanitarium was held on March 10, at 6:30 p. m. After the reports from the Records Department and analysis of the work of the hospital, the following special case reports were presented:

1. A Febrile Case Suspected of Being Osteomyelitis—Dr. L. J. Clark. Discussed by Drs. G. C. Jarrett and G. M. Street.

2. Bronchial Pneumonia in Acute Miliary Tuberculosis—Dr. G. C. Jarrett. Discussed by Drs. A. Street and L. S. Lipincott.

3. Cesarean Section—Dr. G. M. Street.

Drs. L. S. Lippincott and G. C. Jarratt presented brief reports of the literature of the month.

Dr. A. Street presented a report on the Third Annual Assembly of the Southeastern Surgical Congress, at Birmingham, Alabama, March 7 and 8, 1932.

The following selected radiographic studies were demonstrated: Osteomyelitis of Cranium after three and one-half years, showing regeneration of bone; Sarcome of Lung, Metastatic, showing progress of disease; Aneurism of Thoracic Aorta; Pneumonia (5 cases); Cholelithiasis; Nephrolithiasis.

The meeting closed with a lunch. The next meeting of the staff will be held on Monday, April 18.

VICKSBURG SANITARIUM AND CRAWFORD STREET HOSPITAL.

Staff Meeting, February 10, 1932.

Abstract—Cardiac disturbance associated with substernal thyroid producing pressure symptoms.—Dr. L. J. Clark.

Patient.—White, male, aged 37 years; admitted to hospital December 11, 1931. *Chief Complaint*.—Shortness of breath; choking spells; restlessness; cough. *History of Present Illness*.—Began three days ago following a very severe dyspneic attack with complete prostration. Confined to bed. Had also contracted a slight cold with fever. Past year has become restless on slight exertion and often without exertion had attacks of choking in throat. Attacks lasted only for one-half to one minute and were relieved entirely by sitting straight up. On several occasions collapse and loss of consciousness for several minutes. Has always had a rapid heart. Past few years had found that whiskey would relieve him and he was taking approximately one quart per day up to three days before admission. Smokes numerous cigarettes daily. The past history and family history were not significant. *Physical Examination*.—Fairly well developed and nourished adult, white male, apparently very restless and uncomfortable; dyspneic but not orthopneic. Temperature, 99.4° F.; pulse, 120, regular; B. P., 120/90.

Sclerae slightly icteric; slight cyanosis of lips. Pharynx red; tongue coated. Heart rapid, regular, with a definite gallop rhythm noted particularly over lower sternum; no murmurs. There was also a slight suggestion of a pericardial friction rub in apical region. Moist rales throughout lungs most pronounced in bases. Liver three fingers breadth below costal margin. Abdomen somewhat tight; no fluid demonstrated. Extremities show no edema but rather cold and cyanotic. Reflexes negative.

Laboratory Examination.—Urine: trace of albumin. Leukocytes, 12,000; hemoglobin, 77; neutrophils, 78. Wassermann, Kline and Young, and Kahn tests, negative. Blood urea nitrogen 14.14 mg. per 100 c.c. Roentgen ray, flat plate, 30 inches distance, taken in bed, showed marked evidence of wet lungs and apparently slight enlargement of heart. A shadow about aortic arch suggested substernal thyroid about size of small orange. Electrocardiogram shows marked sinus tachycardia with slight notching of S wave and inverted T lead III. *Clinical Course.*—This patient was treated in the usual way for congestive heart failure with digitalization, mild catharsis and morphine. It was considered best to continue alcoholic stimulation later as he seemed to go into a state of delirium tremens at first, with symptoms suggesting uremic coma. After several disturbances more of a nervous type, improvement was noted. Small doses of Lugol's solution were later administered thinking of a possible hyperthyroid condition. Basal metabolism was not attempted because of condition but was later found to be normal. Fluoroscopic examination of patient in upright position with view of esophagus confirmed previous reports. There was definite displacement of trachea and esophagus to left. Recent investigation continues to reveal evidence of a mass in the region of upper sternum not related to the aorta. Electrocardiogram after three weeks shows marked decrease in rate but considerable evidence of myocardial disease. Patient was discharged January 10, 1932, very greatly improved but still under digitalis and restricted exercise.

Discussion.—Chesky states that hyperthyroidism, regardless of the type of goiter by which it is produced, has probably a more damaging effect on the cardio-vascular system than any other system. There are several kinds of goiter producing heart symptoms and a great many may be present and not produce classical findings, consequently often escape diagnosis.

The exophthalmic goiter with all the classical signs and symptoms of hyperthyroidism may be easily noted. The colloid goiter, both diffuse and nodular types, may exist for 30 to 40 years without producing toxic symptoms and later undergo changes producing toxic symptoms. The fetal adenomas probably cause the least cardiac damage, existing for years and gradually getting

larger without symptoms, or becoming mildly toxic at any time and producing slight tachycardia and nervousness. Often cardiac symptoms and goiter may coexist with goiter symptoms incidental, producing cases of so-called neurocirculatory asthenia. There is a type in patients over 50 years of age with increased blood pressure, small, firm, uniform or nodular, which causes rapid heart action and dyspnea on exertion. There may be signs of congestive heart failure. The metabolic rate varies from normal to a considerable elevation.

Finally, there is the middle-aged patient with a nodular non-toxic goiter with serious heart disease and definite evidence of failure. The metabolism is normal and the failure cannot be attributed to the goiter.

The case presented is not unusual except that the shadow behind the sternum was suspicious of a goiter, and while there were no toxic symptoms and a normal metabolic rate, it strongly suggested trouble from a pressure point of view. Many of the symptoms mentioned in this case were due to the substernal mass and not directly to the myocardial changes evident.

Meeting of the Staff, March 10, 1932.

Abstract.—A febrile case suspected of being osteomyelitis.—Dr. L. J. Clark.

Patient.—Colored, male, aged 14 years, first seen January 12, 1932. Came into clinic complaining of pains in left thigh, high fever, restlessness, and a slight cold. Stated that about four days previously he had fallen from a tree injuring his left leg and knee slightly. Had paid little attention to injury and did not stop activities. The second day afterwards he had a chill, followed by fever and pain in left thigh on inner surface. The pain was very severe and patient was unable to rest for twelve hours before coming to clinic. There was no past history of any illness or injury of importance. Family history was not remarkable. *Physical Examination.*—Temperature, 104.6°; pulse, 100; respiration, 24. Tonsils red and apparently somewhat inflamed and enlarged; pharynx red and raw. Lungs showed coarse, mucous rales in lower chest; no dullness; no change of breath sounds. Abdomen slightly distended but not tender; no masses palpated. Inguinal regions not sore and no glands enlarged. Tenderness and swelling of left thigh, inner surface; apparently some pitting on pressure. The femur was not tender or painful laterally; no pain on motion or jarring of extremities. No swelling of leg below the knee; only a slight abrasion over knee cap. Blood count: 22,600 leukocytes; 84 neutrophils with 49 immature forms. No malaria. Roentgen ray study of left femur did not show anything suggestive of bone or periosteal pathology. The patient refused to be admitted to hospital and palliative treatment was instituted. Three days later returned much

worse, having more pain and aggravation of all symptoms. He had not been free of fever since last seen. Temperature, 104.6°; pulse, 120; respiration, 24. He was then admitted to hospital. Leukocyte count, 17,600; about same cell distribution as previously found; no malaria found. Urine not remarkable. Wassermann, Kline and Young and Kahn tests negative. *Procedure.*—In view of the history and blood count, with some evidence of tenderness in the thigh and swelling, pus somewhere in the thigh and possibly in the bone was suspected. *Operation.*—On January 17, 1932, incision in upper medial left thigh. Tissues friable as if about to enter into an abscess but no frank pus observed. Structures separated down to femur and here the finger seem to enter a small cavity lying on the bone and the bone surface seemed rough. A swab was taken from this cavity and two holes drilled in the bone to the medulla. Greased gauze packing left in to exit of wound. Drained pus for about two or three weeks and gradually granulated. Swabs from left femur showed numerous pus cells (polymorphs) and rare gram positive cocci. Cultures grown aerobically showed no growth. Because of extreme toxemia, 250 c.c. of citrated blood was given. This was repeated on several occasions until condition was better. Fever continued high, 101° to 104.6° F., for five weeks, during which time blood cultures were negative. Blood count continued high. Food was forced. Occasional intravenous mercurochrome was given, producing a reaction each time. Blood tests for undulant fever and typhoid were negative. Fourteen days after operation, developed a definite pulmonary infraction in lower right chest, producing pain and the usual signs. Gradually cleared up without complication. At the end of the fifth week the temperature began to show a gradual decline and tended to be almost normal every other day. Because of the temperature without any positive evidence of malaria, I experimented with quinine and a few days afterward the temperature became normal and continued so for one week when patient was discharged as cured.

Discussion.—The points of interest were that although the history and to some extent the physical examination indicated osteomyelitis and operation seemed advisable, in so far as can be determined there was never any evidence of bone destruction consistent with osteomyelitis.

The possibilities are that there was a subperiosteal abscess and I do not believe that there was any connection with the injury. However, if a similar case should come under my observation I believe I would advise surgery, in view of the dangers that might result from neglected osteomyelitis. I am not able to say that there was such a condition as malaria present. It is probably coincidental that the fever disappeared following administration of quinine.

Staff Meeting, March 10, 1932.

Abstract.—Bronchial pneumonia in acute military tuberculosis.—Dr. G. C. Jarrett.

Patient.—White, female, aged 14 weeks, seen first January 20, 1932. *Chief Complaint.*—Cough; refusal of food; loss of weight; fretful and crying. *Present Illness.*—Mother stated that infant had gained and thrived nicely and seemed in excellent health up until she was six weeks of age, at which time she began with a cough and running nose and some fever. At this same time with the cough she would spit up some of the preceding feedings. Vomiting was not projectile in type and has never been so. The cough was paroxysmal in nature but not worse at night and no whoop. No history of exposure to pertussis. The cough has been present up to this date although there has been no fever. Has vomited a great deal of feedings. As a result has become malnourished and dehydrated. The child has been under care of physician who has changed formula on numerous occasions with no success as to preventing vomiting and correction of anorexia. Also has given numerous intramuscular injections of blood and saline and ether in oil enemas to stop cough. An intradermal tuberculin test was negative six weeks ago as was the Wassermann test. At no time has the cough been absent except for possibly one or two days and at no time a whoop. *Family History.*—Mother and father living and well; one infant died at twenty months; cause unknown. No miscarriages, no tuberculosis contact known. One other child, five years old, living and well. *Birth History.*—Normal cephalic delivery without instruments, no cyanosis or convulsions; nursed well from start; weight, 6½ pounds. *Feeding History.*—Breast for two and one-half weeks; failed to gain and then put on Mellin's food, then reolac, then cow's milk, dextrimaltose and water mixture, then evaporated milk-lactic acid-karo mixture; then condensed milk; then lactogen; and at present on reolac, two tablespoonsful to three and one-half ounces of water with one-half teaspoonful sugar. *Physical Examination.*—Temperature, 101.2° F.; weight, 6 pounds 10 ounces. Markedly malnourished and dehydrated, marasmic infant, apparently very acutely ill with paroxysmal cough and cyanosis; practical cessation of breathing with cough but no whoop. Head: Anterior fontanelle open, soft and depressed; scaly dry seborrheic dermatitis or "cradle cap." Pupils equal and react to light; tympanic membranes normal; nose normal; no redness of pharynx; no paralysis of palate. Neck: No glands or masses; veins very prominent, especially with cough. Chest: Ribs prominent; veins prominent; chest rather round, shallow, rapid, difficult respiration. Lungs: Many coarse and musical rales throughout, similar to those of asthmatic bronchitis. No bronchophony, dullness, or tubular breathing and no fine rales. Heart: Sounds

faint and overshadowed by lung sounds; no murmurs or enlargement. Abdomen: Spleen, and liver not palpated; no masses and no pyloric tumor; small umbilical hernia; veins prominent. Genitalia, no discharge; extremities, no deformities; central nervous system, no pathology found; anus, normal; skin, dry, turgor poor, ashen color.

Tentative Diagnosis.—(1) Possible pertussis; (2) chronic bronchitis; (3) malnutrition with dehydration.

Laboratory Findings.—Blood: Hemoglobin, 72; erythrocytes, 4,520,000; leukocytes, 12,500; small lymphocytes, 3; large lymphocytes, 5; large mononuclears, 3; polymorphonuclear neutrophils, 56; polymorphonuclear eosinophils, 2. Urine: Rare fresh red blood cells; numerous clumped bacilli; otherwise not remarkable. Mantoux tuberculin test (1-1000) negative.

Course and Treatment.—Admitted to hospital January 20, 1932. Gave 100 cc. of whole citrated blood intravenously through longitudinal sinus. Put on formula of carnation milk, 8 ounces, water 16 ounces, and dextrinmaltose No. 1, one level teaspoon full, to be given three ounces every three hours. Compound tincture of benzoin inhalations for one hour every six hours. Mustard plaster, followed with camphorated oil every six hours and retention enema of 1 cc. ether in one ounce of mineral oil every six hours. Child took formula eagerly with no vomiting. Two to three stools in 24 hours, well digested and smooth. Cough not characteristic of pertussis but of chronic bronchitis. January 21.—Blood: Hemoglobin, 82; erythrocytes, 6,550,000; leukocytes, 14,800; small lymphocytes, 20; large lymphocytes, 5; large mononuclears, 15; polymorphonuclear neutrophils, 60. Roentgen ray of chest revealed peribronchial infiltration. Taking formula well. January 23.—Temperature normal. Gave 100 cc. of Hartman's-5 glucose solution as clysis. Taking formula; stools normal. Cough still present; no change in chest findings. January 24.—Temperature normal. Cough improved; taking formula well; stools normal. Cannot believe this pertussis unless paroxysmal stage is past and this a resulting chronic bronchitis. Although Mantoux test negative, as one finds often in this state of nutrition, and chest reveals nothing characteristic, have to think of tuberculosis. Child discharged home on same formula and treatment with addition of viosterol, 5 minims three times a day. January 29.—Mother telephoned from home in near by city. Stated that infant coughed much less and taking formula and seemed hungry after taking the three ounces. Increased formula: Carnation milk, 10 ounces; water, 22 ounces; dextrinmaltose, two large tablespoonsful; to give eight feedings of four ounces each. January 31.—Brought child to office. Weight six pounds and eleven ounces; temperature 98.6° F. by rectum. Mother stated that infant was not coughing as much and had taken

above formula well and has four to five stools daily, firm and smooth.

Physical examination showed infant still markedly malnourished and dehydrated. The same physical findings of chest as at previous examination were present—musical rales throughout; no dullness or bronchophony; no fine rales. Advised to continue treatment and formula and to give five minims of syrup of ferrous iodide three times a day. February 9.—Temperature, 97° F. by rectum; weight, 6 pounds, 6 ounces; blood: erythrocytes, 4,410,000; hemoglobin, 82; leukocytes, 13,700; lymphocytes, 62; polymorphonuclear neutrophils, 33; polymorphonuclear eosinophils, 5. Admitted to hospital. Since last visit to office, child has taken formula well, stools normal, no nausea and vomiting, no fever, and cough has been much less up to yesterday, when mother states cough became severe and continued during night. Physical examination.—Very little change in physical findings except it was obvious that the child lost weight and seemed more dehydrated and acutely ill. Lungs showed coarse and musical rales throughout, more resonant than normal; no dullness of bronchophony. Given 125 cc. of 5 glucose in Hartman's solution by clysis. Put on same formula consisting of carnation milk, 10 ounces, water 22 ounces, dextrinmaltose No. 1, two level tablespoonsful. Treatment otherwise same as on first admission. February 10.—Temperature, 99.8° F. Gave 120 cc. of glucose in Hartman's solution by clysis. Child seemed much weaker and refused formula. Expired at 8:30 p. m. Autopsy permitted on thorax only. Lungs showed acute broncho-pneumonia and milary tuberculosis.

SOUTHERN BAPTIST HOSPITAL.

The Clinical Staff met February 23, 1932 with Dr. Ansel Caine as chairman.

The following papers were presented in the form of symposium on birth injuries:

Diagnosis of Birth Injuries—Dr. Julian Graubarth.

Incidents in the Management of the Cerebro Birth Injuries—Dr. G. C. Anderson.

Late Manifestations of Cerebro Birth Injuries.—Dr. C. S. Holbrook.

Following this portion of the program the case history with autopsy findings of a case of carcinoma of the stomach with metastasis to the regional lymph nodes with a cyst of the omentum was discussed.

Dr. D. N. Arnold, House Officer, then presented the monthly list of deaths with their diagnosis for discussion.

FRENCH HOSPITAL.

A regular meeting of the French Hospital Staff was called to order Thursday, March 10, 1932, Dr. H. B. Alsobrook presiding.

The reports of discharges and deaths for the previous month were given. The charts of two deaths were referred to the Records Committee as these were incomplete. A letter from the Membership Committee recommending Dr. Clyde G. Barthelemy for membership to the Dental Staff was read and approved.

Members of the staff attending this meeting had the pleasure of hearing Dr. W. H. Harris and Dr. L. J. Menville, who spoke on the "Pathological and Radiological Aspects of Pulmonary Tuberculosis." Dr. Harris discussed the route of entry of the tubercle bacillus into the lungs and pointed out that no new blood vessels are formed in a tuberculous area—the vascular blood supply does not reach the lesion. Another interesting point which he brought out is that a person has a lessened susceptibility to pulmonary tuberculosis when he has had the disease in early life. A patient who has had tuberculosis in early life if he develops it at all in later life usually has a low grade, chronic type; whereas, one who has

not had the disease in childhood as a rule develops the miliary, fulminating type.

Dr. Menville took up the radiological aspects of pulmonary tuberculosis. Roentgen ray is the best single means we have in the diagnosis of early pulmonary tuberculosis. The earliest lesion is usually at about the first or second interspace, more often on the right. The roentgen ray can visualize a lesion as small as 4 mm. in diameter, and for this reason it is discovered earlier by the roentgen ray than by the clinician, as earliest lesions are not usually accompanied by symptoms that lead patients to a physician; and, furthermore, because of the location the clinician has the thick pectoral muscle to contend with. However, the manifestation of activity should be left to the clinician.

Both Dr. Harris and Dr. Menville illustrated their talk with specimens and films of interesting cases. Drs. G. C. Anderson, F. Loria, P. H. Jones and D. N. Silvermann joined in the discussion that followed.

Cuthbert J. Brown, M. D., Sec'y.

TRANSACTIONS OF ORLEANS PARISH MEDICAL SOCIETY

CALENDAR.

April 1 — Pathological Conference, Hotel Dieu, 11 A. M. to 12 Noon.

April 1 — Physiology Seminar, Tulane Medical School, 5 P. M.

April 4—Eye, Ear, Nose and Throat Hospital Staff, 8 P. M.

April 7—Clinico-Pathological Congress, Touro Infirmary, 11 A. M.

April 8 — Pathological Conference, Hotel Dieu, 8 P. M.

April 8 — Physiology Seminar, Tulane Medical School, 5 P. M.

April 11—ORLEANS PARISH MEDICAL SOCIETY. Quarterly Executive Meeting, 8 P. M.

April 13—Touro Infirmary Staff, 8 P. M.

April 14—Clinico-Pathological Congress, Touro Infirmary, 11 A. M.

April 14—French Hospital Staff, 8 P. M.

April 15—Pathological Conference, Hotel Dieu, 11 A. M. to 12 Noon.

April 15—I. C. R. R. Hospital Staff, 12 Noon.

April 15—Physiology Seminary, Tulane Medical School, 5 P. M.

April 15—Mercy Hospital Staff, 8 P. M.

April 18—Hotel Dieu Staff, 8 P. M.

April 19—Charity Hospital, Medical Section.

April 20—Charity Hospital, Surgical Section.

April 21 — Clinico-Pathological Congress, Touro Infirmary, 11 A. M.

April 21—Eye, Ear, Nose and Throat Club, 8 P. M.

April 22—Pathological Conference, Hotel Dieu, 11 A. M. to 12 Noon.

April 22—Physiology Seminar, Tulane Medical School, 5 P. M.

April 25—ORLEANS PARISH MEDICAL SOCIETY, 8 P. M.

April 26—Baptist Hospital Staff, 8 P. M.

April 28 — Clinico-Pathological Congress, Touro Infirmary, 11 A. M.

April 29—Pathological Conference, Hotel Dieu, 11 A. M. to 12 Noon.

April 29 — Physiology Seminar, Tulane Medical School, 5 P. M.

During the month of March besides the regular meeting of the Board of Directors, the Society held a joint clinical meeting at the United States Marine Hospital, a joint meeting with the New Orleans Gynecological and Obstetrical Society and a special meeting in honor of two visiting doctors from Boston.

At the Clinical Meeting at the Marine Hospital the following program was presented:

Inspection of Hospital. Guests were met in the lobby and shown through the hospital by members of the Staff.

Clinical Meeting.

1. The Use of Plaster of Paris in the Treatment of Leg Fracture

By Dr. W. F. Ossensfort. Discussion opened by Dr. E. S. Hatch

2. Results in the Treatment of Pernicious Anemia

By Dr. R. L. Lawrence. Discussion opened by Dr. J. C. Cole

3. Diathermy in the Treatment of Paresis
By Dr. N. B. Bon. Discussion opened by
Dr. Henry Daspit
4. Notes from Our Records on Malignancy.
By Dr. T. B. McKneely. Discussion opened
by Dr. Waldemar R. Metz
Refreshments were served

At the joint meeting of the Society with the New Orleans Gynecological and Obstetrical Society Dr. Irving W. Potter, of Buffalo, New York, was the guest speaker and presented the following subject:

"The Technic of Elective Version and Extraction (with lantern slide demonstration) together with the Immediate Repair of the Birth Canal Injuries."

There was a special meeting held on March 31 in honor of Dr. S. A. Levine and Dr. M. C. Sosman, of Boston. Papers presented were as follows: "The Bedside Recognition and Treatment of Cardiac Irregularities"

By:.....Dr. S. A. Levine
"Present Status of Cholecystography"

By:.....Dr. M. C. Sosman
The attendance at all of these meetings was very good.

The various committees of the Committee on Arrangements for the American Medical Association meeting have been very active during the past month. With the meeting only a few weeks away the committee will continue to work. The Chairman of the Finance Committee has sent out another letter requesting donations. *Please send in your subscription at once.*

We regret to report the death of one of our Active Members during this past month, Dr. J. Birney Guthrie. Dr. Guthrie was one of our most active members having been President in 1928.

The following applications for membership are posted:

- Active: Drs. R. R. Robinson and H. B. deB. Seebold.
Interne: Drs. J. A. Alvarez, Leo G. Davis and J. E. Granade.
Associate: Drs. J. W. Healey and Fred J. Wolfe.

TREASURER'S REPORT.

ACTUAL BOOK BALANCE: 1/29/32.....\$1,509.62
Receipts during February:.....\$2,123.36
\$3,632.98
Expenditures:\$1,645.40
ACTUAL BOOK BALANCE: 2/29/53.....\$1,987.58

LIBRARIAN'S REPORT.

One hundred and forty books have been added to the Library during February. Of these 47 were received by gift, 4 from the New Orleans Medical and Surgical Journal and 89 by binding. New titles of recent date are listed below.

One case of journals was prepared and sent away for binding and two cases were received from the bindery and prepared for the shelves.

The following notation of subjects on which material has been collected shows to some extent the breadth of use which is being made of the Library:

- Work of Minot and Castle on pernicious anemia.
- Crystalline insulin.
- Novak theory of menstruation.
- Traumatic backache.
- Sacro-iliac strain.
- Physiotherapy in surgical conditions.
- Skin grafting.
- Asbestosis of the lungs.
- Light therapy in the treatment of children's diseases.
- Medical aspects of headache.
- Mortality resulting from ligation of external iliac artery.
- Traumatic pulmonary tuberculosis.
- Precocious menstruation.
- Early history of Tulane Medical School.
- Non-padded plaster cases.
- Recent statistics on malignancy.
- Allergy in contagious diseases.
- Endocrines as causative factors in nervous diseases.
- Location of English abstract of German article published in 1923.
- Work on female sex hormone.
- Poisoning from silver polish.
- Diphtheria toxoid immunization.
- Trichlorethylene treatment of trigeminal neuralgia.
- Work of the dental clinic in the prevention of tuberculosis.
- A circular letter has been addressed to the membership asking volunteers for help in the book reviewing. The results are gratifying and this important feature of our work will be greatly facilitated.

NEW BOOKS.

- Joslin—Diabetes, 1931.
- U. S. Army—Report of Surgeon General's Office. 1922.
- Pusey—Doctor of the 1870s and 1880s. 1932.
- Dickinson—1000 marriages. 1931.
- Miner—Living the liver diet. 1931.
- H. THEODORE SIMON, Secretary.

LOUISIANA STATE MEDICAL SOCIETY NEWS

H. Theodore Simon, M. D., Associate Editor.

PRESIDENT'S PAGE

NEARING THE END.

The reader will hear from us only once again, through this medium, as May 10 will be inauguration day for the next President, our distinguished confrere, Dr. Roy B. Harrison.

As we near the end of our administration, we have a sensation of pleasure, dissatisfaction and regret. We find pleasure in resigning the duties of President to one whom we know will look well to the interests of Organized Medicine: we are dissatisfied and feel regretful that so much must be passed on and left to him for accomplishment.

It is easy to suggest, and leadership, statesmanship and executive ability must be present in an association such as ours, for the practical application of constructive suggestions. It is within the province of the retiring President, in fact his duty, to make what suggestions he feels will be to the interest of the Association for the incoming administration's consideration.

Leadership, statesmanship and executive ability, we all recognize in our next President, and in offering the following suggestion as a part of his future program, we are doing so thus far in advance, because of its great importance as we see it, and in order that he and the membership generally, may have a chance to consider its worth before the House of Delegates meets on May 9.

The time is fast approaching, if not already here, when the State Society must have a full time trained Executive Secretary a man scientifically trained and versed in the problems of organization; one familiar with the basic evils besetting the medical profession; one who can teach the rank and file, methods of procedure, and formulate uniform programs of action by the various Parish Societies, which will tend to the enlightenment of the public, hasten the relief from many present ills and defeat the many evil tendencies.

The State Association, sooner or later, must put in the field, a man with such qualifications, one whose program will be to travel from one end of the State to the other, meeting regularly the Parish Associations, working out their individual problems and collectively, those of the State Association.

With only half, or less, of the qualified physicians of the State, members of the State Society, there can be but one conclusion reached: that conclusion is, "There is something wrong with the State Association."

A little self analysis will do us good. Louisiana needs a medical association which will function three hundred and sixty-five days out of the year, rather than four or five: she needs an association with live departments looking to the solution of all problems which concern the doctor. Under our present plan, this is impossible. Money must be spent and for such a purpose, it will prove a most wise and profitable investment.

It is our intention to suggest to the House of Delegates on May 9, that a carefully selected committee be appointed to look into the feasibility of such a plan and to make suggestion after careful study and investigations. This of necessity must consume some time and careful thought.

Other and wiser plans may be suggested. We are all agreed that a need exists. A solution can be found by co-operative thought and study.

S. C. Barrow, President.

REGISTER THE BIRTH OF YOUR BABY AND RECEIVE MOTHER'S BIRTH REGISTRATION CERTIFICATE.

An intensive effort is being made by the Louisiana State Board of Health to get prompt and accurate reports of all births occurring in the State of Louisiana. This is the first duty to the infant and may prove a necessity in later life.

A special appeal is therefore made to doctors and midwives to see that birth certificates are promptly forwarded to the State Board of Health, Bureau of Vital Statistics, New Orleans.

J. A. O'Hara, M. D., President,
Louisiana State Board of Health.

NEURO-PSYCHIATRIC CLINIC, ALEXANDRIA.

One of the very commendable pieces of Medical Work that is being conducted in Louisiana today is the Neuro-Psychiatric Clinic, free to the Public, conducted at Alexandria by the Staff of the Central Louisiana State Hospital with Dr. H. O. Colomb, a Physician of eminent qualifications in this especial branch of Medicine, as Clinical Director.

Long since recognizing the great need of such work and the vast possibilities that are afforded by such a Clinic, Dr. Clarence Pierson, Superintendent of the Hospital opened this Clinic in Alexandria some few months ago on Wednesday and Friday of every week, at which time different Members of the Staff of the Hospital are present for consultation for all cases suffering with every form of nervous and mental trouble, mental retardment or social maladjustments. These cases

applying to the Medical Clinic are thoroughly examined, all necessary laboratory tests are made by the Hospital Laboratory Technician and a complete diagnosis of the case is made. Patients are not prescribed for or treated medically at the Clinic, but are referred back to the home or attending physician with recommendations for every indicated treatment and suggestions as to his or her proper social adjustment.

The hearty co-operation of the Medical profession of North Louisiana is indeed due this advanced step and will be the means of rendering that much assistance to so many deserving people.

Present activities for the prevention of mental disorders in this State should be directed toward the acquiring and disseminating of information for the profession and the public conducting and fostering mental Clinics for children and adults is awakening new interest in mental health everywhere. "Mental disorders and their consequences have such serious social, medical and economic significance that it is of vital importance that every possible extra institutional effort be made for prevention, early recognition and effective treatment." This should be supplemented by curative measures undertaken by mental hospitals and the individual psychiatrist and other physicians.

Mental hygiene and its great activity of today are serving as great modern adjuvants in our correctional work and is an effort to correct the evil of social adjustment rather than treat the evil after it has left its imprint upon Society. Child Guidance Clinics should shortly follow in the wake of this work that is being done today and a greater number of local Mental Hygiene Societies have a broad field of activity before them and with this forerunner for the betterment of general conditions throughout our State our Public Welfare Organizations can function more practical hereafter. Our best authorities agree upon the future for mental hygiene which is preventive medicine "provided that we are not carried away by any theory" no matter how attractive and provided we do not hold our hopes and claims beyond reasonable possibility or fulfillment.

Clarence Pierson, M. D.,
Superintendent.

AVOYELLES MEDICOS HELD ONE OF ITS BEST MEETINGS AT BORDELONVILLE, LA.

Amid icicles from oozing seepage water and overflowing back of the big Bordelonville levee on Bayou des' Glaises—the north side totally under water, where resides Dr. R. G. Ducote, one of the most loyal members of the medical profession, the Avoyelles Parish Medical Society

held its first meeting of the year with a most interesting scientific and social program, Wednesday evening, March 9th., 1932. Dr. Emeric deNux and Dr. D. B. Barber of Rapides formed the guests of the occasion. The following members of the Avoyelles unit answered the roll: Drs. Emil Regard, Kirby A. Roy, A. T. Barbin, Walter F. Couvillon, S. J. Couvillon, W. A. Quirk, and R. G. Ducote.

Dr. D. B. Barber of Alexandria presented the society with a very interesting talk with demonstrations on the "Hormone test for Pregnancy." With three living rabbits in which 10 c.c. of urine had been injected 28 hours before, one of the animals with the urine of an unpregnant person and the other two with the specimen of an early and late pregnancy, Dr. Barber went into his subject well and the autopsies proved conclusively as to the accuracy of the test. The subject proved very interesting to the profession, especially when and where it may come necessary to present positive evidence in medico-legal cases.

Under clinical cases, Dr. Emil Regard reported a case of "Wombless Woman" in his practice. Dr. Sam Couvillon reported a recent experience with a case where it is objectionable to introduce an opiate even in the first stage of labor, as the foetus even after a very easy delivery, may show signs of opium poison and coma for hours following expulsion. Both cases were well discussed.

The banquet tendered the doctors by Mrs. Ducote was very tasteful and enjoyable. The Society then adjourned to meet at Moreauville the second Wednesday of June. Dr. Emeric deNux will read a paper and Dr. Kirby A. Roy of Mansura will represent the society as essayist.

S. J. Couvillon, Secretary.

INFECTIOUS DISEASES IN LOUISIANA.

The United States Public Health Service, in collaboration with Dr. J. A. O'Hara, President of the State Board of Health of Louisiana, has issued the following morbidity health reports, which briefly abstracted give the following information. For the week ending February 20 the important diseases that have been reported are as follows: Thirty-two cases of diphtheria, 28 of typhoid fever, 19 of pulmonary tuberculosis, 19 of scarlet fever, 23 of cancer, 10 of influenza, 10 of pellegra, 15 of syphilis, and 15 of whooping cough. The following week ending February 27 there were reported 99 cases of syphilis, 60 of gonorrhea, 29 of diphtheria, 14 of cancer, 19 of pneumonia, 31 of pulmonary tuberculosis, 15 of scarlet fever, 20 of typhoid fever, 2 of pellegra, and 11 of smallpox. For the week ending March 5 there was a marked increase in the number of cases of influenza, 169 being reported throughout the State. An epidemic of measles also seems

to be present, as in the preceding week 11 cases of this disease were reported, whereas in this the ninth week of the year there were 110 cases. Other diseases reported in double figures include 23 of diphtheria, 23 of gonorrhea, 29 of tuberculosis, 27 of pneumonia, 30 of syphilis, 15 of typhoid fever, and 16 of whooping cough. The week ending March 12 the influenza and measles epidemic seems to have subsided, as only 12 cases of the former were reported and 18 of the latter. The instance of other reportable diseases in double figures were: Forty-four of syphilis, 31 of diphtheria, 35 of pulmonary tuberculosis, 24 of pneumonia, 13 of typhoid fever, 14 of gonorrhea, 16 of scarlet fever, and 12 of whooping cough. During this four weeks period 10 cases of tularemia were reported.

HEALTH OF NEW ORLEANS.

The Department of Commerce, Division of Vital Statistics, has published the following information concerning mortality conditions in the City of New Orleans. For the week ending February 13, there were 140 deaths in the City, 80 of which were white and 60 colored, giving a death rate of 15.4 for both races, 12.4 for the white and 22.8 for the negro. The infant mortality rate for the same week was 74, much augmented by the 131 mortality rate among the negroes. For the week ending February 20, the death rate had fallen. There were 119 deaths in the City, with a death rate of 13.1, the deaths being divided 75 white and 44 colored. The infant mortality rate was 34 for the total population, but 82 for the negro. For the week ending February 28, the report was not received. For the week ending March 5, there was a slight increase in the number of deaths, 143 in the entire City, 85 being white and 58 colored. The colored rate was again high, being 22.1. The infant mortality among the colored was high, the rate being 147, giving a rate for the total population of 80. All these three reports showed a very consistently good death rate in the City. The first nine weeks of the year 1931 the death rate was 19.8, but this year at the same period of the year the rate has only been 15.4.

Whereas: in the death of Dr. Louis G. Stirling, the medical profession of the Parish of East Baton Rouge, has sustained an irreparable loss, and—

Whereas: we, the members of the Medical Staff of Our Lady of the Lake Sanitarium, appreciating his splendid ability, integrity, moral character and usefulness to our community, and desiring to express these sentiments to the world at large:

IT IS RESOLVED, THEREFORE; that we all join in doing honor to his memory at this time;

that these resolutions be spread upon the minutes of our organization, and that a copy of same be given to the Medical press; and another copy be forwarded to the immediate family of our departed associate, as evidence of our heartfelt sympathy for them in the hour of their bereavement.

Baton Rouge, La., February 24, 1932.

Signed—

R. C. Kemp,
P. H. Jones,
Tom Spec Jones
Thomas C. Paulsen,
H. Guy Riche,
J. A. Caruthers,
Jno. McKowen,
Committee on Resolutions.

NEWS ITEMS.

On March 17, 1932, Prof. Charles J. Bloom, of the faculty of the Graduate School of Medicine of The Tulane University of Louisiana, addressed a meeting of the Seventh District Medical Society at Jennings, La., on "The Use of Dicalcium Phosphate in Experimental Rickets."

Dr. Oscar W. Bethea of the Faculty of the Graduate School of Medicine of The Tulane University of Louisiana, addressed the South Mississippi Medical Society at the meeting held at Laurel, Miss., March 10, 1932, on "Heart Pains."

Dr. C. Jeff Miller addressed the Southern Surgical Congress in Birmingham, March 7.

A. A. Surgeon B. L. Newell, U. S. P. H., has been relieved from duty at U. S. Penitentiary, Atlanta, Ga., and assigned to duty at New Orleans, La., as Chief Medical Officer of the Federal Jail in New Orleans.

A board of officers of the U. S. P. H. service was convened to meet at New Orleans for the purpose of examining certain candidates in order to determine their fitness for entrance into the regular corps as Assistant Dental Surgeon.

Detail for the Board: Dental Surgeon Ozias Paquin, Jr., Chairman; Surgeon W. Y. Hollingsworth, member; P. A. Surgeon G. H. Faget, member; P. A. Dental Surgeon P. J. Slaughter, member; Asst. Dental Surgeon Donald H. Soper, recorder.

TRI-STATE MEDICAL SOCIETY.

The Tri-State Medical Society met in Texarkana, March 16 and 17. The program was participated in by a large number of Louisiana physicians. Dr. James Bradley spoke upon the value of the sedimentation test to the general practitioner.

This paper was discussed by Dr. T. P. Lloyd and Dr. C. E. Hamner of Shreveport. Dr. Edwin Knighton of Shreveport spoke upon digitalis, its use and abuse. His paper was discussed by Dr. J. E. Knighton, Sr. Dr. Edgar Hull of New Orleans spoke upon the diagnosis of heart disease by the general practitioner, this paper being discussed by Dr. Chas. R. Gowen of Shreveport. A paper on obstetrical anesthesia was read by Dr. W. P. Lambeth of Shreveport. The essay of Dr. W. H. Browning of Shreveport on later developments in diagnosis and treatment of nephritis was discussed by Dr. T. P. Lloyd of Shreveport. This paper was followed by a presentation on differential diagnosis of the acute abdomen with lantern slide demonstration by Dr. Ambrose H. Storck of New Orleans. At the banquet that evening the main address was given by Dr. S. C. Barrow, President of the Louisiana State Medical Society. Dr. Barrow also opened the discussion of the second paper the next day. Dr. Baron Johns' paper on the symptomatology of movable kidney was discussed by Dr. B. S. Porter and Dr. B. M. McKoin of Monroe. The next three papers were all by Shreveport men, Dr. I. B. Rougon presenting the cause and significance of frequent urination in the female. The discussion of the paper by Dr. O. C. Rigby on varicose veins was opened by Dr. M. T. Green of Ruston, and followed by Dr. J. E. Heard of Shreveport. A lantern slide demonstration on the diagnosis and treatment of pulmonary abscess by Dr. Frank H. Walke had the discussion opened by Dr. P. R. Gilmer of Shreveport. On the afternoon of the second day of this interesting meeting a presentation on recent progress in medicine and surgery was made by Dr. A. A. Herold and Dr. Paul B. Abramson, both from Shreveport.

THOMAS W. SALMON MEMORIAL LECTURES.

The first series of the Thomas W. Salmon Memorial Lectures will be given at the Academy of Medicine in New York City beginning April 8. These three lectures will be delivered by Dr. Adolf Meyer of Baltimore. The lectureship is given under the endowment Fund raised by the Thomas W. Salmon Memorial Committee to commemorate the memory of one of the really great psychiatrists of this country, whose tragic death occasioned a great loss to medicine.

The American Proctologic Society will meet in Memphis, Friday and Saturday, May 6 and 7 at the Hotel Peabody. Dr. John L. Jelks of Memphis and Dr. Victor K. Allen of Tulsa have charge of arrangements. An interesting scientific program has been arranged.

WOMAN'S AUXILIARY NOTES.

The Woman's Auxiliary to the Louisiana State Medical Society will hold its annual meeting on Monday, May 9th in New Orleans, on the day preceding the opening of the American Medical Association Convention.

The headquarters for the day will be at the Orleans Club, 5005 St. Charles Avenue. There will be an executive board meeting at 10:30 a. m. A luncheon at 12:30 p. m., followed by a general meeting with the installation of officers.

All visitors to the Convention whether members of the Auxiliary or not will be welcome to this luncheon and meeting. Reservations must be sent no later than May 4, to Mrs. Adolph Jacobs, 2616 Napoleon Avenue, accompanied by check of one dollar and ten cents.

THE WOMAN'S AUXILIARY TO THE ORLEANS PARISH MEDICAL SOCIETY.

At the monthly meeting held at the Orleans Club, May 9th, the standing committees such as Philanthropy, Education and the Collection of Medical Samples showed that their good work was increasing. Some Hygeia subscriptions had come in, the samples had been distributed in large quantities and although the Philanthropic Committee had given a large amount of clothing the Chairman renewed her plea for more contributions as the need is very great.

The Treasurer announced that the membership had grown considerably and that there were about three hundred members in good standing.

Dr. John Fletcher, Professor of Psychology at Tulane University was the speaker of the afternoon. Following his instructive talk the members were entertained by a musical program.

All women attending this Convention are invited to participate in this Program whether they are Members of the Auxiliary or not.

Woman's Auxiliary
to the

American Medical Association

Tenth Annual Meeting

New Orleans

May 9-13, 1932

Headquarters: Jerusalem Temple,

1137 St. Charles Avenue

Preliminary Program.

Monday, May 9, 1932:

6:00 p. m. National Board Dinner and Pre-Convention Meeting (for Board Members only)
Orleans Club, 5005 St. Charles Ave.

Tickets \$1.50

Tuesday, May 10, 1932:

9:00 a. m. General Meeting, Jerusalem Temple,
Mrs. Arthur B. McGlothlan, presiding.

12:30 p. m. Buffet Luncheon, Jerusalem Temple.

Tickets \$1.00

2:00 p. m. Walk through Vieux Carre, with Guides, starting from the Patio Royale.

4:00 p. m. Tea, Patio Royale.

8:00 p. m. General Meeting of the American Medical Association, Auditorium.

Wednesday, May 11, 1932:

9:00 a. m. General Meeting, Jerusalem Temple. Mrs. Arthur B. McGlothlan, presiding.

12:30 p. m. Auxiliary Luncheon, Southern Yacht Club (12 minutes from Canal Street, or from Jerusalem Temple).

Luncheon tickets \$1.50—Transportation 25c

2:30 p. m. Post-Convention Board Meeting, Southern Yacht Club.

2:30 p. m. Through Garden Gates: Glimpses of New Orleans.

4:00 p. m. Teas in private residences.

8:30 to 12 M Divertissements in the Garden, New Orleans Country Club, under the direction of Mrs. Lillian Lewis. Buffet Supper. Negro Spirituals. Courtesy of the Woman's Auxiliary to the Louisiana State Medical Society.

Thursday, May 12, 1932:

9:00 a. m. General Meeting, Jerusalem Temple, Mrs. Walter Jackson Freeman, presiding.

10:00 to 10:50; 11:00 to 11:50 a. m. Special Round Table Conferences, Jerusalem Temple.

12:00 noon, Buffet Luncheon, Jerusalem Temple.

Tickets \$1.00

1:00 p. m. Trip to Oak Alley Plantation, visiting Spillway. Returning at 6 p. m.

(Round Trip \$2.00 per person)

or

2:00 p. m. Round-trip over Lake Pontchartrain, via New Bridges.

(Trip \$2.00 per person)

or

2:30 p. m. Trip to Versailles Plantation, Battle Field of New Orleans; Docks and Wharves.

(Trip \$1.00 per person)

or

2:30 p. m. Delgado Museum and City Park; Newcomb Art School and Audubon Park.

(Trip \$1.00 per person)

or

2:30 p. m. Mayan Exhibit, Tulane University.

Transportation 25c

9:00 p. m. President's Reception and Ball, Auditorium.

Friday, May 13, 1932:

9:00 a. m. Trip to Gulf Coast. Train leaves L. & N. Station at 9:00 a. m., returning at 6 p. m. (Round Trip \$5.25, including luncheon at Great Southern Hotel in Gulfport, Miss., and bus transportation along Coast).

10:00 a. m. Golf Tournament, Metairie Golf Club.

All trips start from Jerusalem Temple.

Bus transportation to be paid for by Individuals.

CONVENTION COMMITTEE

Mrs. Joseph Hume, General Chairman
State Presidents:

Louisiana:

Mrs. R. T. Lucas, Shreveport, La.

Mississippi:

Mrs. Henry Boswell, Sanatorium, Miss.

Orleans Parish Medical Society:

Mrs. S. M. Blackshear.

Executive Committee

Mrs. S. M. Blackshear, Publicity.

Mrs. W. R. Buffington, Treasurer.

Mrs. W. Rogers Brewster, Telephone.

Mrs. Marcus Feingold, Vieux Carre.

Mrs. Roy B. Harrison, Registration.

Mrs. Arthur Herold, Shreveport, La., and Mrs. H. W. E. Walther, New Orleans, La., State Organization.

Mrs. Chaillé Jamison, Corresponding Secretary.

Mrs. A. L. Levin, Recording Secretary.

Mrs. Geo. King Logan, Transportation.

Mrs. John H. Musser, Entertainment.

Mrs. William H. Seemann, Lunch.

The always active Woman's Auxiliary to the Shreveport Medical Society, held another of their delightful meetings at the Woman's Department Club. An innovation was the bringing by each member a guest and there were a number of out-of-town guests. Mrs. A. A. Herold gave a summary of some splendid work which report is printed following.

Mrs. Louis Abramson told of her visit last month to the Dallas Auxiliary.

The guest speaker was Mrs. Percy Meyer who gave a very brilliant and inspiring talk on "Peace."

The report of Mrs. A. A. Herold, Chairman of the Pines Preventorium Committee of the Woman's Auxiliary to the Shreveport Medical Society:

The Preventorium takes care of potentially tuberculous children, one or both of whose parents are generally at the Pines, the tuberculous Sanatorium in conjunction with which the Preventorium is operated.

The Preventorium accommodates seventeen children ranging in age from one to twelve. A graduate nurse is in charge of the children, and a Public School teacher keeps those of school age abreast with their school work. This teacher was secured through the efforts of the Preventorium Committee of the Woman's Auxiliary to the Shreveport Medical Society. She has practically had charge of the social and educational side of these children's lives since the opening of the Preventorium. The work with these children is the outstanding constructive work that the Shreveport Auxiliary is doing. The field is large,

and each year we hope to enlarge the scope of our work.

This year the Preventorium Committee realized, that unless they could follow the children into their homes after they had left the Preventorium their work was in vain. We have therefore, divided the work, and those on the committee have volunteered to do the phase of the work they like best.

A Vice-Chairman has charge of the entertainment of the children. A Doctor's wife goes every Friday to the Preventorium and either entertains the children or takes them for a drive.

The Clinic Chairman has a Doctor's wife at the Chest Clinic every Wednesday morning from eleven until twelve to take histories of all children brought to the Clinic. These reports are then sent to the Chairman of the follow-up committee, and she or a member of her committee goes to the home of the child and investigates. When necessary, she takes the child to the Preventorium. While the child is at the Preventorium this committee keeps in touch with the child's family, trying to improve the conditions before the child is ready to return.

All the children at the Preventorium seem happy, and are sorry when it is time for them to return to their respective homes.

JAMBALAYA.

One of the thoughts Mrs. Freeman left us, here in New Orleans, was that of the advisability of all Auxiliaries having a definite fiscal year, a date when the books of the organization are closed and the members in good standing tabulated as by that method the representation from the State to the meeting of The Woman's Auxiliary to the American Medical Association is determined.

May 9 is the day that is to be devoted to registration of the local women who care to attend the various entertainment to be given during the meeting of the American Medical Association. To relieve the registration Committee, do not leave it until the last moment, and decide then just what you are desirous of doing and follow that plan faithfully, for a lot of the success of the Convention depends on your cooperation.

ATTENTION PARISH AND DISTRICT SECRETARIES.

We wish to direct your attention to the fact that the Annual Meeting of the Louisiana State Medical Society and the meeting of the American Medical Association are only about six weeks off. We have not yet received dues from a great many of the physicians who took out membership in the State Society in 1931.

We are anxious to have every available physician a member of organized medicine, especially at this important time, and would respectfully solicit your cooperation and help in getting all the doctors of your Parish and locality into the State Society. Unusual arrangements are being made for the entertainment of the doctors at the State and American Medical Association meetings in New Orleans, May 9-13, and all of us may look forward to a real scientific treat.

P. T. TALBOT, M. D.,
Secretary-Treasurer.

MISSISSIPPI STATE MEDICAL ASSOCIATION NEWS

L. S. Lippincott, Editor

Jacob S. Ullman, Associate Editor

D. W. Jones, Associate Editor

MISSISSIPPI STATE MEDICAL ASSOCIATION.

Monday, April 11, 5:30 p. m.—Edwards Hotel.
Special meeting of House of Delegates.

Tuesday, April 12, 8 a. m.—Robert E. Lee Hotel. Meeting of House of Delegates.

1:30 p. m.—Section on Surgery.
Section on Hygiene and Public Health.
8:00 p. m.—Public Session.

Wednesday, April 13, 9:00 a. m.—Section on Surgery.

2:00 p. m.—Section on Medicine.

Thursday, April 14, 9:00 a. m.—Section on Medicine.

Note: All meetings except Monday at Robert E. Lee Hotel.

In this number will be found messages from our President and the tentative reports of a number of the officers of the Association. Please read them carefully. They contain much information that will be of value to you in transacting the business affairs of the Association. It is to be regretted that the reports of all officers were not available for pre-convention study. Our Association needs your best thought and judgment.

On Monday, April 11, at the Edwards Hotel, will occur the annual meeting of the Mississippi State Hospital Association, with sessions at 9 a. m., and 2 p. m., and a banquet at 6:45 p. m. All hospitals of the State are cordially invited to send representatives and all members of the Mississippi State Medical Association will be welcome guests, whether connected with hospitals or not. You should plan to attend the banquet also.

TO ALL MEMBERS OF THE HOUSE OF DELEGATES:

You are hereby notified of a special meeting of the House of Delegates on Monday, April 11, at 5:30 p. m., at the Edwards Hotel, Jackson, Mississippi. The purpose of this meeting is to officially change the time of our State Meeting from May 12, 13, 14 to April 12, 13, 14. This can only be done by the House of Delegates and it is absolutely necessary that this action be taken in order to legalize all transactions which will be made at our regular meeting the following day.

All Members of the House of Delegates have not as yet been reported to the state secretary by local society secretaries so it will be possible for me to write personally only to those whose names

have been sent to the secretary of the state society.

John C. Culley, President.

CALENDAR.

April 1. Natchez Medical Club, 1 p. m.

April 4. Staff of Jackson County Hospital, 7:30 p. m.; Staff of Meridian Sanitarium, 7:30 p. m.; Staff of South Mississippi Charity Hospital, Laurel, 7 p. m.; Staff of George C. Hixon Memorial Hospital, Electric Mills, 8 p. m.

April 5. Staff of King's Daughters' Hospital, Brookhaven, 7:30 p. m.

April 6. Staff of Chamberlain-Rice Hospital, Natchez; Staff of Vicksburg Infirmary, 7 p. m.; Staff of Rush's Infirmary, Meridian, 7 p. m.; Staff of Dr. F. G. Riley's Children and Maternity Hospital and Clinic, Meridian, 7 p. m.

April 7. Pike County Medical Society, McComb, 7:30 p. m.

April 8. Staff of Anderson Infirmary, Meridian, 7 p. m.

April 11. Mississippi State Hospital Association, Edwards Hotel, Jackson, 9 a. m.

House of Delegates, Mississippi State Medical Association, Edwards Hotel, Jackson, 5:30 p. m.

Staff of South Mississippi Charity Hospital, Laurel, 7 p. m.

April 12. Mississippi State Medical Association, Robert E. Lee Hotel, Jackson; Staff of Natchez Sanatorium, 7 p. m.; Winston County Medical Fraternity, Louisville; Staff of Tupelo Hospital, 7:30 p. m.

April 13. Mississippi State Medical Association, Robert E. Lee Hotel, Jackson; Staff of King's Daughters' Hospital, Greenville, 7 p. m.; Harrison-Stone-Hancock County Medical Society, King's Daughters' Hospital, Gulfport, or The Biloxi, Biloxi, 7:30 p. m.

April 14. Mississippi State Medical Association, Robert E. Lee Hotel, Jackson.

Staff of Aberdeen Hospital, 8 p. m.; Staff of Vicksburg Hospital, 6:30 p. m.; Homochitto Valley Medical Society, Natchez, 2 p. m.

April 15. Natchez Medical Club, 1 p. m.

April 18. Staff of South Mississippi Charity Hospital, Laurel, 7 p. m.; Staff of Vicksburg Sanitarium, 6:30 p. m.

April 19. Staff of Natchez Charity Hospital, 8 p. m.; Central Medical Society, Jackson, 7 p. m.

April 21. East Mississippi Medical Society, Elks Club, Meridian, 3 p. m.

April 25. Staff of South Mississippi Charity Hospital, Laurel, 7 p. m.

TO THE PROFESSION.

As has been announced before through the Journal, our State Meeting will be held on April 12, 13, 14, in Jackson. The host society has selected the Robert E. Lee Hotel as the place of the meeting. To those who have complained of the noise and confusion at previous meetings this should come as pleasant news. The entire upper floor of the hotel will be given over to us. The Assembly Hall has a sound proof floor and all chairs are rubber tipped. This will insure absolute quiet while the essayist is presenting his paper. There is also a most spacious roof garden adjoining, which is inclosed in glass and will be used for sectional meetings.

Every physician in the state who can get away from his practice should come to this meeting. Never before in the history of the Association has it been so important for every physician in the state to be enrolled as an active member of his county and state societies. May I urge all our physicians, whether members of the House of Delegates or not, to attend the meetings of the House this year. Many questions of importance will be discussed and acted upon. Every member will be given an opportunity to express himself.

This has been an unusually fortunate year for the physicians of Mississippi. Because of the business depression and attendant "poor collections" many of us have felt that we could not go to distant clinics or take post-graduate work. To offset this, we have had at our very doors the best that the profession has had to offer. The Southern in New Orleans, the Mid-South Post-Graduate Assembly in Memphis, the Southeastern Surgical Congress in Birmingham have given us ample opportunity to hear many noted men who brought to us the very latest thing in medicine and surgery. Now comes the State Meeting in April from which the whole profession will receive much information which will be of definite service when we return to our work. I believe that the plans of the program committees will offer a pleasing change from the regular schedule of past meetings.

Aside from the scientific program do not forget what you will receive for your money. Your paid-up membership in your local society gives you also membership in the State Medical Association, makes you eligible for membership or fellowship in the American Medical Association, furnishes medico-legal protection by the Council of the Mississippi State Medical Association, gives you the New Orleans Medical and Surgical Journal, and last, but not least, offers you greater opportunity for pleasant social and professional intercourse with your colleagues. The greatest thing on earth is true friendship. Which of us has failed to make lasting friendships by contact at our County or State Society meetings?

John C. Culley, President.

FROM OUR PRESIDENT.

TO THE PROFESSION.

My year of service as president of the State Medical Association will soon come to a close. There are many things which I had intended doing at the beginning of my term of office which it has been impossible for me to accomplish. The most important of these was to make a personal visit to every society in the state. Although I have traveled over five thousand miles attending local society meetings, I have fallen far short of my purpose. The many duties which have been placed upon me during the past year, at times bad weather conditions, the necessity of properly caring for my own patients, the conflict in the meeting dates of many of the local societies, the prolonged illness and finally passing away of my mother have all interfered with the carrying out of the program which I had planned. In spite of these obstacles, however, I have managed to attend a great many meetings and have come in personal contact with hundreds of physicians whom I have not had the pleasure of knowing before.

In this final letter to you it is my purpose alone to impress upon every member of the association the importance of attending our annual meeting. I would also like to ask the support of each of you in the enlistment of new members before April 12.

There will be many important subjects to be brought before the association in Jackson, and it is the duty of every physician in the state to be present if possible and hear these matters discussed. While I have not seen the completed program, I have been informed by the chairmen of my various sections that we are to have as visitors some of the outstanding physicians and surgeons of the South, one of them being a past president of the American Medical Association. Our annual orator for this meeting will be a man who is known to every physician in the state. I need no more than to call his name. He is Dr. W. S. Leathers, now dean of Vanderbilt University Medical School and a member of the Board of the Rockefeller Foundation. Shall we not show our appreciation of his visit by giving him the largest audience which any speaker has ever had at our annual meeting?

John C. Culley, President.

ECHOES FROM JACKSON, THE CONVENTION CITY.

Mayor Scott says: "We are always glad to have the doctors. They usher us into this life, and conduct us out of it; and relieve us of our ailments and our cash in between times. Tell the boys to 'make themselves at home' and if they get into jail call me. The traffic officers will be instructed to watch out for your caduceus and if you are tagged for parking overtime, hunt up

the officer on duty and tell him who you are, and he will take up your ticket."

Mr. H. O. Pate, manager of the Robert E. Lee Hotel, says: "We are glad to have the State Medical Association make headquarters at our hotel this year. We have 300 rooms equipped with everything for the comfort and convenience of our guests. The hotel is in a quiet place, free from disturbing noises. The auditorium on the twelfth floor is especially fitted for roentgen ray pictures, etc. Special rooms for committees and section meetings will be furnished. The Ladies' Auxiliary will have headquarters on the mezzanine. The lobby will be given over to the registration bureau and exhibits. In fact, all the facilities of this hotel will be at your disposal, and every possible courtesy will be extended to you as our guests. Free parking space is available for our guests with a watchman in charge."

Mr. Black, Convention manager for the Chamber of Commerce, says: "The Chamber of Commerce, representing one thousand of the leading business men and women of Jackson, extends a cordial welcome to the State Medical Association. We are glad to have you this year, next year, and every year. The central location of Jackson, with her ample hotel accommodations, good roads, and railroad facilities, makes Jackson the logical convention city for all the state associations, and it ought to be their permanent meeting place."

"The Chamber of Commerce appreciates your convention here, and will be glad to serve you in any way. We would be glad to furnish transportation for a ride over our city at any time your arrangement committee may wish us to do so. Perhaps some or all of you would like to ride out to the new asylum grounds also. Let us serve you."

Dr. N. C. Womack, Chairman of the Arrangement Committee from the host Society, says: "We are planning the best facilities ever furnished at a state meeting. While we expect to give most of the time to the perfection of plans for the work of the Sections, so that all may profit by the very excellent scientific program offered this year, we shall not lose sight of the social element, and will try to make every doctor who attends have a good time. Special rates have been arranged at the hotels, and provisions made for overflow in case the hotels are crowded. Every member of the Central Medical Society is a member of the Entertainment Committee and will be at your service for anything we can do for you. Special clinics will be arranged at the several hospitals, but not allowed to interfere with the programs."

Mrs. A. G. Wilde, President of the local chapter of the Ladies' Auxiliary, says: "Our auxiliary will have headquarters on the mezzanine of the Robert E. Lee Hotel. Besides the business meeting, we plan a number of social events for the

ladies attending with the doctors. You will not have to be a member of the auxiliary to join in with us. We cordially invite all the doctors' wives to come along, whether members or not; but especially urge all the members to attend. This will not be a dress parade, but a business meeting and a social get-together. So, never mind about that new hat. Just come along and have a good time with us."

D. W. Jones.

TENTATIVE PROGRAM, MISSISSIPPI STATE MEDICAL ASSOCIATION.

Jackson, April 12, 13 and 14, 1932.

(All Sessions at the Robert E. Lee Hotel.)

TUESDAY, APRIL 12, 8 A. M.

Meeting of Council and House of Delegates. Subsequent meetings will be arranged by the House.

TUESDAY, APRIL 12, 1:30 P. M.—SECTION ON SURGERY.

1. Address of Chairman—W. H. Anderson, Booneville.
2. Some Common Conditions of the Upper Urinary Tract.—Dr. J. A. K. Birchett, Jr., Vicksburg.

Discussion opened by J. W. Barksdale and John Darrington.

3. Treatment of Lesions of the Cervix and Perineum.—V. B. Philpot, Houston.

Discussion opened by H. A. Gamble and M. L. Flynt.

4. Gunshot Wounds of the Abdomen.—R. W. Smith, Canton.

Discussion opened by L. C. Feemster, Jr., and W. W. Crawford.

5. Osteomyelitis: Treatment and Importance of Early Diagnosis.—R. D. Kirk, Tupelo.

Discussion opened by Murray Davis, Memphis, and T. E. Ross, Jr.

WEDNESDAY, APRIL 13, 1932, 9 A. M.—SECTION ON SURGERY—(Continued).

6. The Diagnosis and Surgical Treatment of Duodenal Ulcer.—R. L. Sanders, Memphis, Tennessee.
7. Sterility in Women, Including Its Surgical Aspects: Lantern Slides.—M. Y. Dabney, Birmingham, Alabama.
8. Studies of Carcinoma of the Large Intestine, and Results of Operative Treatment: Lantern Illustration.—W. D. Haggard, Nashville, Tennessee.

Luncheon, Section on Surgery—Wednesday noon.

TUESDAY, APRIL 12, 1932, 1:30 P. M.—SECTION ON HYGIENE AND PUBLIC HEALTH.

1. Important Facts Regarding the Prevention and Treatment of Diphtheria.—J. A. Milne, Jackson.

Discussion opened by R. E. Wilson and L. W. Long.

2. The Functions of a County Healty Department Laboratory.—L. S. Lippincott, Vicksburg.

Discussion opened by E. F. Howard and E. T. White.

3. Matters of Current Interest in Medicine and Public Health.—Warren F. Draper, Richmond, Virginia.

Discussion opened by G. W. F. Rembert and Henry Boswell.

4. The Toxemias of Pregnancy: A Critical Analysis of 2221 Deaths—James B. McCord, Emory University, Atlanta, Georgia.

Discussion opened by Ira B. Seale and Carter O'Ferrell.

5. The Control of Filth-Borne Diseases in Mississippi: How and When.—T. Paul Haney, McComb.

Discussion opened by B. D. Blackwelder and C. C. Applewhite.

PUBLIC SESSION, TUESDAY, APRIL 12, 8 P. M.

Robert E. Lee Hotel.

1. Invocation.—Dr. J. Lloyd Decell, Jackson.

2. Address of Welcome:

On behalf of the city of Jackson—Mayor W. A. Scott.

On behalf of the Central Medical Society—Julius Crisler, Jackson.

3. Response to Addresses of Welcome.—J. M. Acker, Jr., President-Elect, Aberdeen.

4. President's Address.—Medical Education in Mississippi.—John C. Culley, Oxford.

5. Annual Oration.—W. S. Leathers, Dean of Vanderbilt University, School of Medicine, Nashville, Tennessee.

WEDNESDAY, APRIL 13, 1932, 2 P. M.—SECTION ON MEDICINE.

1. Chairman's Address—Diabetes Mellitus: Old and New Views.—G. W. F. Rembert, Jackson.

2. Angina Pectoris and Coronary Thrombosis.—T. D. Bourdeaux, Meridian.

Discussion opened by J. P. Culpepper, Jr., and Leonard Hart.

3. The Increased Incidence of Amebic Dysentery as a Warning for More Thorough Study of Diarrhoeas.—John C. Archer, Greenville.

Discussion opened by F. M. Acree and R. M. Donald.

4. Undulant Fever—A Case Report.—R. G. Clark, Hattiesburg.

Discussion opened by F. J. Underwood and T. W. Kemmerer.

5. The Present Status of Pernicious Anemia.—T. J. Crofford, Jackson.

Discussion opened by E. L. Green and W. A. Dearman.

6. Pneumothorax.—S. F. Strain, Sanatorium.

Discussion opened by R. E. Schwartz and W. A. Toomer.

THURSDAY, APRIL 14, 1932, 9 A. M.—SECTION OF MEDICINE—(Continued).

7. The Modern Renaissance of Syphilis.—Lloyd Thompson, Hot Springs National Park, Arkansas.

Introduced by J. M. Acker, Jr., Aberdeen.

8. Headaches—Causes and Treatment.—Allan Eustis, New Orleans, La.

Introduced by J. S. Ullman, Natchez.

9. The Treatment of Cardiac and Renal Oedema.—James G. Carr, Chicago, Illinois.

Introduced by L. J. Clark, Vicksburg.

10. Did You Ever Stop to Think.—Louis R. Brown, Little Rock, Arkansas.

Introduced by J. P. Wall, Jackson.

11. Asthma From the View Point of a Pediatrician.—Edward Clay Mitchell, Memphis, Tennessee.

Introduced by N. C. Womack, Jackson.

EYE, EAR, NOSE AND THROAT SECTION.

The Eye, Ear, Nose and Throat Section of the Mississippi State Medical Association is planning an innovation this year. In addition to the regular program, there is to be a round-table luncheon. It has been the custom for several years to have a Dutch treat luncheon following the section meeting. This has provided an opportunity to indulge in fellowship and has been most enjoyable.

This year the chairman has planned that in addition to the usual luncheon, a round-table discussion will be indulged in. During the luncheon, slips of paper will be passed among those present so that those who desire to do so may present questions or subjects for discussion. The discussion will be along three lines: Allergy, Otolaryngology, and Ophthalmology. The chairman is particularly fortunate in having an able man to lead the discussion in each department. Those questions related to hay fever, asthma, etc., will be referred to Dr. John P. Henry of Memphis, Tenn.; those related to ear, nose and throat subjects will be referred to Dr. Millard F. Arbuckle of St. Louis, Mo., the guest otolaryngologist; those relating to the eye will be referred to Dr. W. R. Buffington of New Orleans, the guest oculist.

Dr. Henry, for several years, has devoted his entire attention to the field of allergy and has done some notable work. He is a member of the Society for the Study of Allergy and is considered an authority on the subject.

Dr. Millard F. Arbuckle, besides attending to a large private practice, is connected with the teaching staff of Washington University and has a service at Barnes Hospital. Dr. Arbuckle is a fellow of the American College of Surgeons, a member of the "Triological" and other exclusive otolaryngological societies, and is considered to be one of the country's most able surgeons.

Dr. Buffington hardly needs any introduction to the doctors of Mississippi. He is professor of ophthalmology at Tulane University and was recently elected chairman of the Eye, Ear, Nose and Throat Section for the 1933 meeting of the Southern Medical Association.

The chairman is to be congratulated on having secured the attendance of such outstanding men. This is considered such an unusual treat that all members and guests of the Association are invited to attend, the only requirements being that the Chairman must be notified before 10:30 A. M., April 13, so that adequate reservations may be made, and that each pay for his own lunch. It is hoped that the membership at large will avail themselves of this splendid opportunity.

E. H. Jones, Chairman.

SECRETARY'S FINANCIAL REPORT, 1931.

Receipts:

June 20. Hospital Ass'n. programs.....	\$9.60
Dec. 31. 975 dues	3,900.00
Total	\$3,909.60

Disbursements:

Jan. 15. Postal Tel. Co.....	\$3.00
15. Western Union Tel. Co.	2.40
Feb. 9. Cards and second sheets	7.50
12. Paid Treasurer, Winona certificate	104.00
Mar. 12. Paid Treasurer	1,500.00
Apr. 11. Envelopes for programs	23.30
18. Refund R. C. Finley	8.00
21. Telephone and telegraph	5.00
May 2. Refund, L. Golden..	4.00
9. Printing programs and labels	50.34
14. Paid Registrar	12.50
17. Telephone and telegraph	7.50
22. Blank book, Treasurer	1.50
June 2. Safety box, Treasurer	5.00
July 1. Paid Treasurer	500.00
9. 1000 4-cent stamps	40.00
Dec. 26. Secretary, report blanks	17.35
31. Postage	25.00
31. Secretary's salary ..	500.00
31. Paid Treasurer	1,093.21
Total	\$3,909.60

T. M. Dye, Secretary.

TREASURER'S REPORT (TENTATIVE).

December 31, 1931.

ASSOCIATION FUND.

Balance Association funds, as shown by last report

Receipts (Dr. Cooper):

Mar. 13, 1931. Received from Dr. T. M. Dye, Secretary	1,500.00
	\$3,527.84

Disbursements:

1931.	
Jan. 9. To New Orleans Medical and Surgical Journal	\$226.35
Jan. 20. To Dr. W. M. Robertson	\$35.36
Exc. on draft .10—	35.46
Feb. 18. To Dr. E. W. Holmes, Secretary..	\$7.38
Exc. on draft .10—	7.48
Mar. 21. New Orleans Medical and Surgical Journal	232.65
Apr. 14. Dr. Leon S. Lippincott	\$75.00
Exc. on draft .10—	75.10— 577.04

Balance on hand on transfer to new Treasurer

Receipts (Dr. Wilkins):

July 3. Received from Dr. T. M. Dye, Sec.	\$500.00
Dec. 31. Received from Dr. T. M. Dye, Sec.	901.21—\$1,401.21
	\$4,352.01

Disbursements:

May 22. Dr. W. C. Gill councilor's expense account	\$7.47
May 22. Dr. E. F. Howard, President's expense account	100.00
May 22. Dr. C. W. Patterson, Vice-President's expense account	50.00
May 22. Dr. Dan J. Williams, councilor's expense account	17.65
May 22. Dr. J. W. Lucas, councilor's expense account	12.35
May 22. Dr. L. L. Polk, Vice-President's expense account	17.85

May 22.	Dr. D. W. Lucas, councilor's expense account, etc.....	27.05	Apr. 28.	Interest on Wayne County Bond No. 17	25.00
May 22.	Dr. Joe E. Green, councilor's expense account	7.20	Apr. 28.	Interest on Meridian Bond No. 13	12.50
May 22.	Dr. L. L. Minor, President's expense account	10.35	Feb. 2.	Time certificates, Bank of Winona....	111.38— 170.13
May 22.	Dr. M. J. L. Hoye, Vice-President's expense account	37.14		Balance on hand on transfer to new Treasurer	\$10,631.07
May 22.	Dr. J. S. Ullman, Historian's expense account	100.00		Receipts (Dr. Wilkins):	
June 1.	E. P. Jones, reporter, two sessions	15.50	Aug. 25.	Interest on certificate of deposit No. 25244 Citizens National Bank	\$60.00
June 1.	J. H. Johnson & Co., Treasurer's bond....	52.50	Aug. 25.	Interest on Meridian bonds	12.50
June 16.	N. O. Medical and Surgical Journal....	212.77	Aug. 25.	Interest on Lauderdale county bonds....	25.00
June 8.	Dr. L. S. Lippincott, editor's expense	75.00	Sept. 15.	Interest on Wayne county bonds	25.00
June 17.	Dr. E. F. Howard, Historian's expense	100.00	Sept. 15.	Interest on certificate of deposit No. 5787, Merchants & Farmers Bank	84.96
July 9.	Birmingham Court Reporter Co.	205.44	Nov. 7.	Interest on Fourth Liberty Loan Bonds	21.25
July 14.	Clarksdale Ptg. Co., printing transactions	328.72	Dec. 21.	Interest on Lauderdale county bonds	25.00
Aug. 29.	N. O. Medical and Surgical Journal	12.28	Nov. 25.	Interest on certificate of deposit No. 25525, Citizens National Bank	43.36
Sept. 7.	Dr. L. S. Lippincott, Editor	75.00	Dec. 31.	Dr. T. M. Dye, Sec....	192.00— 489.07
Sept. 16.	N. O. Medical and Surgical Journal	215.85			\$11,120.14
Nov. 17.	N. O. Medical and Surgical Journal.....	15.56		Disbursements:	
Dec. 31.	Booneville Independent	24.15	May 12.	Martin Miller-Hairston case....	250.00
Dec. 31.	Dr. L. S. Lippincott, editor's expense....	75.00		Balance Medico-Legal Fund, December 31, 1931	\$10,870.14
Dec. 21.	N. O. Medical and Surgical Journal	219.37			E. L. Wilkins, Treasurer.
Dec. 21.	N. O. Medical and Surgical Journal.....	16.99			
Dec. 21.	The Times-Post	5.00			
	Total disbursements	\$2,037.19			
	Balance on hand, Association Fund, December 31, 1931	\$2,314.82			
	TREASURER'S REPORT.				
	December 31, 1931.				
	MEDICO-LEGAL FUND.				
	Balance Medico-Legal Fund, as shown by last report	\$10,460.94			
	Receipts (Dr. Cooper):				
	1931.				
Apr. 28.	Interest on Liberty Loan Bond No. K00705340	\$21.25			

HISTORIAN'S REPORT.

Since the by-laws provide that the report of the Historian must "pass the scrutiny" of the Board of Editors, it was decided to consult its members in advance of any action; thereby not only gaining their consent in advance to anything undertaken, but getting advice and suggestions.

With the approval of the Board, the first edition of the history, published in 1910, was taken as a basis. Some of its less interesting features were deleted and some new features added, so that the history as now planned, and largely completed, will include:

1. Preface to the first edition.
2. The 1895 Charter of the Association.
3. The year-by-year record of the Association's activities—a continuation of that published in the First Edition.

4. The Roll of Honor that was published in the 1918 Transactions, corrected and amplified.

5. Biographies of the Presidents of the Association—illustrated with photographs.

6. A complete roster of all officers of the Association.

7. A tabulation of the membership and the attendance at meetings, dating from the reorganization in 1903.

8. The first Board of Medical Examiners.

9. The first Board of Health.

10. The past and present laws regulating the practice of medicine in Mississippi.

All this has been completed, with the exception of the biographies of the presidents. To add to the interest of this section it was decided to illustrate it, but in a few instances it has been impossible, so far, to get the necessary photographs, and sometimes material for the biographies. In the case of men long since dead this failure is entirely excusable but I regret to say that in a few instances I have been unable to get either photographs or materials for biographies from men who have only recently held the office of president and are still members of the Association. I have written to each of them repeatedly, for the most part without any reply at all. Criticism of such neglect is superfluous, but I decline to subject the Association to any further discourtesies of this sort and the pages that would otherwise be filled with these photographs and biographies remain blank except for the names, addresses and dates of office.

There is still needed for this part of the history—

1870. E. T. Henry—photograph.

1881. W. F. Hyer—photograph.

1882. B. F. Ward—photograph, and biography since 1910.

1887. R. S. Toombe—photograph.

1888. N. L. Guice—photograph.

1890. J. E. Halbert—photograph.

1905. T. J. Mitchell—photograph.

1906. E. H. Martin—biography since 1910.

1912. D. J. Williams—photograph and complete biography.

1913. S. W. Glass—photograph and complete biography.

1921. J. W. Barksdale—photograph and complete biography.

1924. W. A. Dearman—photograph and complete biography.

1930. H. A. Gamble—photograph and complete biography.

Your secretary sent me the Historian's allowance—one hundred dollars—shortly after the 1931 meeting. A statement of expenditures has been furnished the Budget and Finance Committee.

This money has been spent on stationery and stenographic work and in experimenting to determine the best economical method of producing the illustrations. Many of the older photographs

will have to be "retouched" in order to make satisfactory reproductions and all must be reduced to uniform size. A small part of this work has already been done and the Budget and Finance Committee has been furnished an estimate of the cost of completing it. Should this prove acceptable, the hundred dollar allowance to the Historian may be discontinued as a very small amount, probably less than ten dollars a year, will amply take care of future costs unless these ex-presidents who have so far failed to co-operate should have a change of heart, in which case the material furnished by each of them can be handled at an average cost of two dollars.

One chief obstacle to work of this sort is the absence of records, therefore, the suggestion is made that we return to the old plan, abandoned some fifteen years ago, of having the secretary keep personal histories of our members. The method formerly employed was comparatively inexpensive, was quite effective and brought the individual members into closer contact with the Association. Frankly, it does not speak well for us that when some member dies, perhaps a man who has given real service, we have no record of his life or work, no information concerning him whatever except what is furnished by the Board of Health. Certainly something more than names and post office addresses should be included in the obituary column of the Transactions.

In this connection I further suggest that the compilation of this column is more in line with the duties of the Secretary than those of the Historian. The Board of Health kindly furnishes us, month by month, the names of all doctors who die in Mississippi. The question of membership in the Association must then be decided by the Secretary and the final detail of making up the list might as well be left with him. If you will consult old files of the Transactions of fifteen or twenty years ago, you will find that the obituary columns contained brief personal records and made a much better appearance than anything of the sort that we have had in recent years in which our neglect of the memory of our departed fellows has done us little credit.

E. F. Howard, Historian.

REPORT OF HISTORIAN.

Vicksburg, Miss.

March 7, 1932.

To:

Budget & Finance Committee.	
Received Dr. T. M. Dye, Sec'y.....	\$100.00
Cover and fillers.....	\$ 4.90
Retouching photos and cuts for	
same	17.57
Typewriting history.....	50.00
Stamps, stationery, etc.....	20.51
	92.98
Balance on hand.....	\$ 7.02

Twenty-nine of the photos now on hand will need considerable retouching in order to produce satisfactory cuts. I have an estimate of this work, from the Unglaub Studio in Vicksburg, of \$80.00, a price that strikes me as quite reasonable considering the amount of work to be done. The Mississippi Engraving Co., Jackson, Miss., has offered to make the remainder of the cuts at an average cost of \$1.50 for 1½x2 illustrations. The cost of illustrating will therefore come to approximately \$90.00 for what work is already on hand.

I suggest that you allow these two items and discontinue for the present at least, the Historian's allowance. The \$7.02 balance will probably defray the current expenses of the office for the next twelve months.

E. F. Howard, Historian.

REPORT OF COUNCILOR, FIRST DISTRICT.

The First District is divided in territory between two wide awake medical societies, the Clarksdale and Six Counties, which embraces Coahoma, Quitman, Tunica, Tallahatchie and part of Sunflower; and the Delta Medical Society, which includes Humphreys, Leflore, Sunflower, Washington and part of Bolivar.

There are about 280 eligible physicians residing in this territory, quite a number of whom, I have tried to enlist interest in becoming members; however, a large per cent are members who attend regularly the semi-annual meetings.

The status quo is: Clarksdale and Six Counties have about 100 eligible members, with a paid up membership of 60 to date. The Delta Medical Society has about 180 eligible, with a yearly average membership of about 100 and a paid up membership to date of 60.

Each society holds semi-annual meetings and the members during the last year, despite unfavorable conditions, manifested unusual interest and attendance. The programs have been full, interesting and instructive. Each meeting was graced by the presence of our active, progressive President, John C. Culley, whose messages were instructive and of interest to the profession.

Since the last meeting of the Delta Medical Society it has lost it's first president and Sunflower County's oldest and most beloved citizen, W. B. Martin, of Indianola. During these distressing times our doctors are fighting valiantly, without complaint, with faith in the future. No law suits pending and the watchword is onward.

The spring meeting of the Delta Medical Society was pretermitted on account of our host, Greenwood territory, being handicapped by overflow of hill waters. The other members desiring to relieve Greenwood of the burden of entertainment called off the meeting.

J. W. Lucas, Councilor First District.

REPORT OF COUNCILOR, SECOND DISTRICT.

In my letter published in the March issue of our esteemed Journal, I gave my report in part from the Second Councilor District. I have not heard, as yet, from the secretaries of the county societies so I cannot give you anything in detail. I believe that our report for this year will be as good as it was last year. The doctors seem to have been hit heavier than others.

L. L. Minor, Councilor Second District.

REPORT OF COUNCILOR, THIRD DISTRICT.

The Northeast Mississippi Thirteen County Medical Association meets quarterly in the various cities of this District. The Thirteen County Society represents the councilor's district. We meet in Booneville, on March 15. We have good attendance at all meetings, several visitors from Memphis, Tennessee, and other cities in Tennessee and other parts of the state. Dr. James M. Acker, Jr., Aberdeen, is secretary. Dr. W. C. Spencer, Tupelo, is president for this year. The presidency of the association is rotated by counties. There is also elected a vice-president from each county, who is chairman of the membership committee for his county. We have 180 eligible for membership. We have at this time 121 paid up members. We also publish our own journal, "The Mississippi Doctor." Dr. W. H. Anderson, Booneville, is editor. There were no suits called to the attention of the Councilor for the past year.

M. W. Robertson,
Councilor Third District.

REPORT OF COUNCILOR, SIXTH DISTRICT.

To the Councilor and House of Delegates, Mississippi State Medical Association:
Gentlemen:

The Sixth Councilor District suffered a distinct loss in the death of Dr. W. G. Gill of Newton who had been active in medical affairs for many years. Your president appointed me to serve the unexpired term and during the short time that I have been Councilor I have endeavored to investigate conditions as they exist in this district and wish to report same at this time.

The East Mississippi Medical Society is making rapid strides under the able direction of Dr. J. S. Hickman of Philadelphia, President, and Dr. T. L. Bennett of Meridian, Secretary. There is a paid up membership of eighty-three with fifteen others whose names are enrolled but who have not paid dues thus far for 1932. Meetings are held every other month with an average attendance of forty-three members. Interesting and instructive scientific papers are read and freely discussed. A friendly and cooperative spirit exists and much should be accomplished during the year.

The Kemper County Medical Society only holds an occasional meeting and doesn't seem to be active at this time. I have tried in vain to meet with this group in an effort to have them unite with the East Mississippi Medical Society. A majority of the members have expressed themselves personally as being in favor of the proposed union. Probably this can be worked out in the near future.

The Leake County Medical Society is also inactive and several of the members have joined the East Mississippi society individually. An effort should be made to have this society united with the East Mississippi Society also.

Since the Scott County Medical Society has united with the Central Medical Society, I presume that Scott county automatically is transferred from the Sixth to the Fifth District.

Dr. J. E. Green, Councilor of the Seventh District, in his report at the last Session of the State Association, suggested the advisability of surrendering the Wayne-Clark County charter, with Wayne joining the South Mississippi Medical Society and Clark uniting with the West Mississippi Medical Society. I find that a majority of the members of Clark are in favor of this and probably some action will be taken this year.

One lawsuit is pending in Lauderdale courts against Dr. C. T. Burt of Meridian. The suit of McCreight vs. the Estate of Dr. J. H. Rush, deceased, has been tried and a verdict rendered in favor of the defendant.

Respectfully,

H. Lowry Rush, Councilor Sixth District.

REPORT OF COUNCILOR, EIGHTH DISTRICT.

The following report from the Eighth Councilor's District is a tentative one; all of the data for a complete report has not been compiled at this time:

The Eighth Councilor's District is composed of the counties of Adams, Amite, Franklin, Jefferson, Wilkinson, Pike, Copiah, Lawrence, Lincoln, and Walthall, a total of ten counties. Within this territory there are three medical societies, the Tri-County Medical Society, the Pike County Medical Society, and the Homochitto Valley Medical Society. One of these societies the Pike County Medical Society is a one-county society. The Homochitto Valley Medical Society embraces the physicians of Adams, Amite, Franklin, Jefferson and Wilkinson. The Tri-County Medical Society unites the physicians of Copiah, Lawrence, and Walthall Counties.

The number of eligible physicians in the Eighth Councilor's District during the year ending May 1, 1931 was one hundred twenty-six. During the year now drawing to a close seven physicians have moved into the district; we have lost six from death and two by removal from the district;

leaving a total of one hundred twenty-five eligible for membership in the three societies of the district.

The compilation of membership statistics for this district has not been completed at this date and it is, therefore, impossible to give accurate statistics as to membership. The total membership in the three societies in this district will, I am afraid, show some loss. I do not believe our loss will be exceptionally large. The financial depression existing in our country will force quite a few of our physicians to fail to renew their membership. This is unfortunate but it is a condition over which we have no control. The physicians, like all other classes of our citizenship, have felt the pinch of "hard times," and the necessity for economy has been forced on them. As a result of this state of affairs some, no doubt, have felt that they could not afford the dues necessary for membership.

During the past year the component societies of this district have been active in their efforts to further the cause of organized medicine. The Councilor District Medical Society met in Natchez in October, 1931. There was an attendance of about one hundred. The program given was an unusually good one. The President of the State Association honored us by his presence and delivered a very interesting address. This society is well established and will I believe in the future contribute a great deal to the interest in organized medicine in this district.

The State Board of Health, recently, with the Tri-County Medical Society acting as host presented a course of lectures covering subjects of great interest to the profession. These lectures were well attended by the physicians of the district. The Pike County Medical Society has recently inaugurated a post-graduate course of lectures to be given by men of outstanding ability in our profession. The plan is an excellent one and should be copied by other medical societies of the district.

All three of the societies in the district have held regular meetings; interesting programs were presented and the attendance has been good.

There have been no mal-practice suits in this district brought to the attention of the Councilor during the past year.

An aggressive membership campaign was put on during the past year. Letters were sent to the vice-presidents of the component societies in the district urging them to make an active canvass of the eligible physicians of their respective counties. Personal letters were written by the Councilor to every eligible physician in the district urging him to become a member of some one of the medical societies of the district.

In times of great financial crisis such as our country is passing through at this time, there is

a strong tendency of the masses toward socialistic panaceas of all kinds. Before the crucial period the masses were beginning to grow restive as a result of the so-called high cost of medical attention and state medicine was beginning to attract the attention of the laity to a degree greater than we physicians realized. Just what the future holds for the physician in private practice none of us know. As individuals we cannot hope to stem the tide once the masses begin to move in the direction of state medicine.

I believe it is of the utmost importance to all physicians that we lose no time in making organized medicine a strong militant organization, capable of protecting the individual physician from the blighting effect of state medicine. To accomplish this end our local societies, the backbone of the State Association, must be strengthened in every way possible. We should not rest content until every eligible physician is brought into the medical societies. With this end in view every member in the medical societies should constitute himself a committee of one to secure at least one new member.

Our local societies should endeavor to suppress that exaggerated individualism that has so often characterized the physician of the past and try to inculcate a spirit of cooperation in their members. The physician of the past was too much inclined to shut himself up in his shell and stand aloof from his brother physician. Let's get away from this worn-out idea and catch more of the spirit of modern times and have more team-work. A good, live, militant local society can accomplish this end.

In concluding this report I wish to thank the officers and members of the component societies in the Eighth Councilor's District for the hearty support they have given the Councilor during the past year.

Respectfully submitted

J. W. D. Dicks,
Councilor Eighth District.

MISSISSIPPI STATE HOSPITAL ASSOCIATION.

TENTATIVE PROGRAM
EDWARDS HOTEL
Jackson, Mississippi

Monday, April 11, 1932
MORNING SESSION.

9:00 a. m.—Call to order by President Leon S. Lippincott, M. D., Vicksburg Sanitarium, Vicksburg.

Invocation—Rev. Wayne Alliston, Superintendent Mississippi Baptist Hospital, Jackson.

Report of Secretary-Treasurer—C. M. Speck, M. D., Superintendent, New Albany Hospital and Clinic, New Albany.

Committee Reports (Excepting Legislation and Community Hospital).

President's Address—Leon S. Lippincott, M. D., Vicksburg Sanitarium, Vicksburg.

Election of Board and Officers.

ROUND TABLE.

HOSPITAL ECONOMY WITH HOSPITAL EFFICIENCY.

PERSONNEL.

"Should the salary and labor scale be reduced?
(a) Is so, How can the Hospital Be Assured of Efficiency?"

10 Minutes—Speaker—B. B. Martin, M. D., Superintendent, Owner, Vicksburg Infirmary, Vicksburg.

5 Minutes—Discussion.

15 Minutes—Open Discussion.

REVENUE.

"Should Hospital Rates Be Reduced To Meet the Present Economic Conditions?"

Speaker—J. Gould Gardiner, M. D., Superintendent, Owner, Columbia Clinic and Hospital, Columbia.

Discussion.

"Reduced Production Costs Affected by New Economics."

Speaker—John C. Culley, M. D., President Mississippi State Medical Association, Superintendent, Owner, Oxford Hospital, Oxford.

Discussion.

Discussion—Wade H. Sutherland, M. D., Superintendent, Booneville.

"What We Are Doing to Increase our Collection Efficiency."

Speaker—M. L. Flint, M. D., Superintendent, Owner, Newton Infirmary, Newton.

Discussion—Mrs. Karenza Gilfoxy, Financial Secretary, Mississippi Baptist Hospital, Jackson.

PURCHASING.

"Twenty Years of Successful Buying and Its Lesson."

Speaker—Maude E. Varnado, R. N., Superintendent, Owner, Laurel General Hospital, Laurel.

Discussion—Trigg, R. N.

AFTERNOON SESSION.

2:00 p. m.—"The Future of the Training School in Mississippi."

Speaker—

Discussion—Mary E. Dorsay, R. N., Directress of Nursing, King's Daughters' Hospital, Greenville.

Report from Mississippi State Medical Association on Community Hospital Legislation.

COMMITTEE:

V. B. Philpot, M. D., Chairman, Houston; R. B. Caldwell, M. D., Baldwin; C. M. Speck, M. D., New Albany; E. R. Nobles, M. D., Rosedale; M. L. Flynt, M. D., Newton; J. P. Culpepper, Jr., M. D.,

Hattiesburg; J. W. D. Dicks, M. D., Natchez; R. W. Smith, M. D., Canton.

Report from Legislation Committee on Hospital Bills Which are Seeking Passage from the State Legislature.

Charity Hospital Bill.

Hospital Fraud Bill.

Automobile Accident Bill.

Open for General Discussion.

"My Constructive Criticism of the Present Day Hospital."

Speaker—

Discussion—

The Presentation of Special Problems for Discussion. (To be submitted by those in attendance).

5:30 p. m.—Afternoon Session adjourn.

EVENING SESSION.

6:45 p. m. PROMPTLY—Banquet—Mezzanine Floor, Edwards Hotel.

Toastmaster—Felix J. Underwood, M. D., Executive Secretary Mississippi State Board of Health, Jackson.

"The Hospital Superintendent Under The Salesman's Microscope."

Speaker—Will Ross, President, Will Ross, Inc., Milwaukee, Wisconsin.

Introduction of New President.

All members of the Mississippi State Medical Association are cordially invited and urged to attend all sessions of the Mississippi State Hospital Association. The Welfare of our doctors is closely linked with the welfare of our hospitals. The meetings of the Association afford a real opportunity to better understand each other's problems to the mutual benefit of all.

OUR FIRST PRESIDENT.



W. Y. Gadberry M. D.

Benton, Mississippi

First President of the Mississippi State Medical Association, 1856

W. Y. Gadberry was born near Greenville, S. C., in 1822 and died at Yazoo City in 1896. His

parents emigrated to Mississippi during his infancy, his father being afterwards one of the first judges of the probate court of Mississippi and later clerk of the court at Benton. Dr. Gadberry's early education was acquired at Benton, Miss., and Greenville, S. C.; he began the study of medicine under the preceptorship of Dr. McMurtry in 1843 and graduated from the University of Louisville in 1845, locating in Benton, where for years he enjoyed a large and lucrative practice. For several years he was collaborator to Gross' JOURNAL OF MEDICINE, contributing, among others of lesser note, articles on typhoid fever, artificial inflation of the lungs and enlarged spleen.

In 1856 he called a meeting of the medical men of the state for the purpose of organizing the Mississippi Medical Association, and was elected its first president by acclamation. He also served the Association as treasurer 1870-71.

During the Civil War he served as surgeon with the Army of Tennessee and while in this position organized the hospital at Oxford which proved of so great value after the battles of Shiloh and Corinth.

In 1867 he settled at Yazoo City where he passed the remainder of his days with the exception of one year, 1869, when he held the chair of surgery in the Louisville Medical College.

In 1849 Dr. Gadberry married Miss Helen Price of Kentucky, and of the union was born four sons, all of whom died in early manhood. His second marriage was with Miss Thornton of Kentucky who bore him eight children.

Transactions 1906.

HOSPITALS.

Hospital management in Mississippi seems to be on a basis wholly unlike that in any other state in this country or for that matter in any other country.

There is no doubt that the hospital situation in our state is unsatisfactory to the medical profession. Yet the physicians of Mississippi seem unwilling to adopt plans that have proven so satisfactory everywhere else.

The Committee on Community Hospitals appointed by President Culley is working on a plan to present to the Legislature which in brief will be a plea for aid to privately owned institutions. The State Hospital Association also has a committee at work on the problem but so far as can be ascertained there has been no attempt at co-operation on the part of the two committees, nor any effort to avoid duplication of activities.

What impression will this make on the Legislature? No doubt it will infer that the profession is divided on this question.

Mississippi has five state hospitals and sixty,

or more, that are privately owned. Practically all the privately owned institutions were established by physicians, and are owned by them. In other portions of the civilized world the physician is just as eager to have hospital facilities but he has been trained to work with others; in spite of factional feeling the aspiring surgeon is willing to work his way up on the staff of the local general hospital.

There is no reason to have a multiplicity of hospitals in any county in this state, with a duplication of overhead expenses. Not only should this be eliminated, but there is no reason why the same institution should not house pay, part-pay and charity patients. Nor, is there any reason why the physician on the staff should not be allowed to collect a fee from those patients that are able to pay.

No one expects the lawyer to forego his fee because the court house is publicly owned. What would be said of the lawyer who built himself a private court house because he did not like the way the county court house was managed?

The Committee of the Hospital Association suggests the appointment of a State Hospital Board to be composed of three members, on salary and with traveling expenses paid. There is not a county in Mississippi that can not furnish enough competent men and women to serve on a board of trustees for the local hospital, thus avoiding such expense. In these days and times we have too many paid officials. Let such funds—if any there be—go to increase the money for hospital maintenance.

Now, here is where I get shot at sunrise! For this is a most unorthodox thing to preach in Mississippi. Let the hospital superintendent superintend the hospitals, and except for giving first aid or emergency treatment leave the patients to the staff. When this is done, as is the case everywhere else there will be sufficient work of a type to keep up the interest of the staff members.

If the superintendent be willing and able to make his board of trustees do more than rubber-stamp his activities; if he be willing and able to keep the visiting staff on the job; if he is to see that the interns pay as much attention to the patients on the medical side as to those on the surgical side; if he superintend the various and varied administrative activities of the hospital; if he devotes no more than three minutes per day to each patient in the hospital (seven and a half hours in a 150-bed hospital) how in the name of all that is holy will such a man have time to operate, to eat, to sleep or to keep up with his profession? When it is realized that the hospital superintendent is a specialist as much as is the laryngologist or the urologist then we shall not

be asking if the newly appointed superintendent can operate.

A laryngologist or other specialist can not be made overnight and by the same token the governor of the state has no right to use such a position to reward his political friends.

With an organized visiting staff the superintendent and interns will be relieved of work that under the present system they are wrongfully burdened with.

If a physician be given the privilege and the opportunity to treat his patients in the community hospital then it is only just and proper that he discharge his obligation by treating the charity patients that are put in his wards, or during the term of his service. Further in order to promote the work of the hospital he should do his part in the keeping of adequate records.

It is the duty of the staff member and should be his pleasure to train the interns so that the three functions of the hospital will be a matter of fact: the care of the sick, research work and the training of physicians and nurses.

The skill of the staff member and the value of his services to his clientele is enhanced by his work in the wards in direct ratio to the efficiency with which he instructs and guides his interns and with which he writes his case records.

J. S. Ullman.

WOMAN'S AUXILIARY. ISSAQUENA-SHARKEY-WARREN COUNTIES MEDICAL SOCIETY.

At the regular meeting of the Issaquena-Sharkey-Warren Counties Medical Auxiliary for February a most interesting paper prepared by Mrs. F. Michael Smith on venereal diseases was read by Mrs. Haralson as Mrs. Smith was unable to attend due to illness. A series of charts was used to illustrate the lessons which was most instructive.

Mrs. Lippincott, Chairman of the Hygeia Committee made an excellent report, this committee having visited all county schools and found it was being regularly received by five, the sixth being supplied by other organizations. A motion that we send in renewals due and other renewals as due, taking advantage of club rates, was carried.

A card party after Easter, for the Preventorium fund is to be arranged by the entertainment committee.

Our next meeting will be a luncheon held at the Vicksburg Hotel on March 15th in the Monroe dining room at exactly 12 o'clock in order that all of our members may attend, each one to pay for her own plate. Delegates are to be elected for the State meeting in April.

Mrs. M. H. Bell, Secretary.

LOWNDES COUNTY.

Dr. Charles Wright, Brooksville, lost all of his books, instruments, and office equipment in a fire which destroyed the building which his office was located.

Dr. J. E. Sanders has moved from Electric Mills to Artesia to take up the practice left vacant by the death of Dr. D. R. Lamb.

Dr. E. Q. Withers has returned from Holly Springs where he was called by the death of a relative.

Dr. M. R. Seay, one of the pioneer physicians of West Alabama, which is only about nine miles from Columbus, passed to his final reward recently. Dr. Seay was a splendid physician, a good and lovable man, and was widely known and patronized in West Alabama and East Mississippi.

Dr. J. W. Lipscomb, Jr., having finished his internship in the Memorial Hospital of New York City, is now resident surgeon in Jamaica Hospital, Richmond Hill, New York, one of the suburbs of greater New York. Van Wyck and 89th St., Richmond Hill, New York, is his address.

Dr. "INCLUDE ALL DEPRESSION" came into our midst some two years ago, looked the situation over and decided to locate; he did, bad cess to him, and from that day to this things have not been the same. The average doctor was getting along very well prior to his advent, while the specialists were almost jubilant in their daily greetings. By degrees the faces of the physicians have grown longer and longer, and now even the specialists have a decidedly wistful appearance. Wish he never had stopped here.

J. W. Lipscomb, County Editor.

STATE BOARD OF HEALTH.

Out of state visitors to the State Board of Health during the past few weeks: Dr. Thomas Parran, Jr., Health Commissioner of New York, Albany, New York; Dr. Edwards L. Keyes, New York; Mr. W. C. Iverson, Southern States Sales Manager, E. R. Squibb & Sons, Atlanta, Georgia; Robert C. Thomas, Assistant Milk Specialist, U. S. Public Health Service, Montgomery, Alabama; H. E. Miller, U. S. Public Health Service; Barbara S. Quin, The Commonwealth Fund, New York; Barry Smith, The Commonwealth Fund, New York; Dr. Clarence L. Scamman, The Commonwealth Fund, New York; Lilly Carey Jones, The Metropolitan Life Insurance Nursing Sup., Atlanta, Georgia; Dr. James R. McCord, Atlanta, Georgia; Miss Anne Taylor, Supervisor of Mouth Health Work, State Board of Health, Atlanta, Georgia; Marian Telford, Field Secretary, National Safety Council, New York City.

Dr. James R. McCord, Professor of Obstetrics and Gynecology, Emory University Medical School, Atlanta, conducted a lecture course on

obstetrics at Meridian, the week of March 7-11. To date Dr. McCord has given this course of lectures at the following places: Indianola, June 22-26, 1931; New Albany, July 20-24, 1931; Vicksburg, August 3-7, 1931; Laurel, August 24-28, 1931; Houston, September 28-October 1, 1931; Brookhaven, February 8-12, 1932; Jackson, February 22-26, 1932; Meridian, March 7-11, 1932.

Dr. J. W. Lipscomb of Columbus, who has served as President of the State Board of Health since June, 1930, at a meeting of the State Board of Health on March 9 was reelected by unanimous vote of the Board.

Dr. Felix J. Underwood, who has served as Secretary of the State Board of Health since July, 1924, was reelected by unanimous vote of the Board for a term of six years.

At a recent meeting of the Board, the following order was issued:

"Whereas the State is endeavoring to treat people with active tuberculosis, and whereas it is thwarting the purpose for which the Sanatorium was established for a person with an incurable case of tuberculosis to remain indefinitely at the Sanatorium:

"Therefore, the State Board of Health hereby instructs the superintendent of the Sanatorium to discharge all patients who have been there the required length of time and who are showing no possibility of further results in their treatment.

"The superintendent is further requested to carry out the instructions in this order just as promptly as possible."

"Mississippi State Board of Health.

"By Felix J. Underwood,
"Executive Officer."

NORTH MISSISSIPPI MEDICAL SOCIETY.

The North Mississippi Medical Society met at New Albany on March 16th at 2 p. m., at the Methodist Church, Dr. H. P. Boswell, President, presiding.

The program included the following:

Invocation.—Dr. A. J. Ranson, New Albany.

Business Session.

Toxemias of Pregnancy.—Dr. Percy W. Toombs, Memphis, Tennessee.

Discussion by Drs. J. B. Bailey and J. I. Mayfield.

Case Reports of Tumors in and about the Orbit.—Dr. B. S. Guyton, Oxford.

Discussion by Drs. Jessie Mauney and S. E. Cooper.

Weighed in the Balance and Found Wanting.—Dr. Max Goltman, Memphis, Tenn.

Official Visit from the President of the State Medical Association.—Dr. John C. Culley, Oxford.

A. H. Little, Secretary.

TRI COUNTY MEDICAL SOCIETY.

The Tri-County Medical Society met on March 8, at Wesson. The doctors were served a splendid dinner by the young ladies of the domestic science department of Copiah-Lincoln Junior College, after which we enjoyed a treat by the musical department—solos, duets, and instrumental numbers.

Dr. Geo. T. Warren, Brookhaven, was elected vice-president from Lincoln County to fill the vacancy made by the recent death of Dr. R. E. Higdon.

Dr. Willis Walley of Jackson, Superintendent of the State Charity Hospital, was present and gave a short but interesting talk about the work at that institution.

SCIENTIFIC PROGRAM.

Diagnosis and Treatment of Seasonable Hay-Fever.—Dr. A. H. Little, Oxford.

Injection Treatment of Hemorrhoids.—Dr. R. S. Savage, Brookhaven.

Handling Emergency Cases in the Home.—Dr. T. F. Conn, Monticello.

All of these papers were heard with much interest and provoked liberal discussion by different members and some reported interesting cases bearing on these subjects.

H. R. Fairfax, Secretary.

BOLIVAR COUNTY.

The following doctors attended the Mid-South Post-Graduate Medical Association meeting at Memphis, Tennessee, on February 9-12: Drs. E. R. McLain, Cleveland; W. M. Merritt, Boyle; S. W. Colquitt, Beulah; E. R. Noble, Rosedale; C. W. Patterson, Rosedale.

Dr. L. B. Austin, Rosedale, is taking a four months' post graduate course in New Orleans.

C. W. Patterson, County Editor.

PONTOTOC COUNTY.

A few doctors from this vicinity attended the Southern Surgical Congress Assembly at Birmingham, Alabama.

A number of our doctors attended the quarterly meeting of the North East Mississippi Thirteen County Medical Society at Booneville on March 15th.

R. P. Donaldson County Editor.

ALCORN COUNTY.

Since the first of the year no births, deaths or weddings have occurred amongst our members.

Dr. J. R. Hill is attending the Mississippi Legislature in Jackson as a member from this county. Dr. W. M. Robertson is attending to his practice during his absence.

The Mid-South Medical Association meeting held in Memphis was attended by Drs. C. W. Nor-

wood, C. F. Gilbert, M. H. McRae, W. M. Robertson and S. L. Stephenson.

Dr. M. H. McRae is now in Chicago doing post work relative to the prostate gland and blood chemistry.

Health conditions are good. McRae Hospital and Corinth Hospital report light work with few patients.

W. A. Johns, County Editor.

JACKSON COUNTY.

At a regular meeting of the Jackson County Medical Association held at Jackson County Hospital, the following officers and members were present: Drs. O. L. Bailey and T. E. Babendreer, Ocean Springs; Drs. M. L. Rosenbaum, J. M. Lockard, R. G. Lander and S. B. McIlwain, Pascagoula; and Drs. W. P. McArthur, J. N. Rape and R. C. Eley, Moss Point. Guests present: The speaker of the afternoon, Dr. T. J. Dimitry, New Orleans, and Drs. G. O. Segrest, J. H. Baumhauer and C. C. Perdue, Mobile, Alabama.

Dr. T. J. Dimitry gave a very interesting as well as instructive lecture on, "The Fifth Nerve, Its Anatomy, Physiology, and Pathology as They Concern the Physician and Dentist." The lecture was discussed by the visiting doctors and some of the members present.

S. B. McIlwain, County Editor.

EAST MISSISSIPPI MEDICAL SOCIETY.

The East Mississippi Medical Society met in the Lamar Hotel, Meridian, Thursday, February 18; at 3 p. m. There were 48 members and 9 guests present.

A short address was made by Dr. J. S. Hickman, President.

Dr. W. R. Holladay was elected as an additional delegate to the Mississippi State Medical Association in Jackson, to represent Lauderdale County, this county having received a total paid-up membership of 50 for the year of 1932.

On motion by Dr. I. W. Cooper, a telegram was sent to Dr. H. S. Gully expressing regrets at his illness and wishing him a speedy recovery.

Dr. C. R. Stingily, chairman of the committee on a medical conference provided for through Dr. F. J. Underwood, Executive Officer of the Mississippi State Board of Health, and sponsored by the East Mississippi Medical Society, gave a report revealing the details of the medical conference had not yet been worked out.

Dr. S. B. Reed, with the State Office of the United States Fidelity and Guaranty Company, explained briefly a group protective insurance policy in which the regular five and fifteen thousand dollars protective insurance policy now carried by many of the physicians at a premium of

twenty-five dollars annually could be had at a twenty per cent reduction in premium rate.

The following program was rendered:

1. Appendicitis in Children.—Dr. W. R. Hand, Philadelphia. Discussed by Drs. G. L. Arrington, K. T. Klein, W. J. Coleman and Shields Abernathy.

2. Some Recent Advances in Diagnosis.—Dr. O. W. Bethea, New Orleans, Louisiana. Discussed by Drs. M. J. Lowry, T. D. Bourdeaux, and J. S. Hickman.

3. Neglected Lesions of the Uterine Cervix.—Dr. Shields Abernathy, Memphis, Tennessee. Discussed by Drs. C. R. Stingily, H. L. Rush and W. J. Coleman.

The next meeting will be held in Meridian, Thursday, March 21.

Through the influence of Dr. F. J. Underwood, Executive Officer of the State Board of Health, a series of lectures on obstetrics was conducted in Meridian by Dr. James R. McCord, Professor of Obstetrics and Gynecology, Emory University School of Medicine, Atlanta, Georgia. These lectures were sponsored by the East Mississippi Medical Society and were held in the Elks' Club March 7 to March 12 inclusive, from 7 to 9 o'clock each evening. The lectures constituted a very instructive post graduate course in obstetrics and were attended by many physicians from Neshoba, Winston, Newton, Lauderdale, Clarke, Jasper, Kemper Noxube, and Wayne Counties, also from adjoining counties of West Alabama.

T. L. Bennett, Secretary.

MRS. B. L. CULLEY

Dr. John C. Culley, President of the Mississippi State Medical Association, has the heartfelt sympathy of every member of the Association and his many friends in the loss of his mother, Mrs. Lucy M. Culley of Jackson. Mrs. Culley was 76 years of age.

Several weeks of suffering, borne with fortitude, preceeded the end. Mrs. Culley was stricken with paralysis in January and from the first only faint hopes were cherished for her recovery.

For forty-six years Mrs. Culley had been a resident of Jackson, the wife and devoted companion of Dr. B. L. Culley, one of the oldest and most distinguished physicians of the capital city, who retired from active practice several years ago because of failing health.

Besides her husband, Mrs. Culley is survived by three sons, M. L. and Percy Culley, Jackson, and Dr. J. C. Culley Oxford, and three grandchildren, Ben and Frances Culley, Jackson and Tom Culley, Oxford.

Few women have held a higher place in the esteem of those with whom they came in contact than this gentle, saintly sweet-souled wife, moth-

er and neighbor whose whole life was consecrated to good deeds. There was about her an amazing aliveness of mind and spirit that invigorated those who enjoyed the privilege of her friendship. Generosity, kindness and tolerance were in her innate and voluntary. She gave gloriously of her love and devotion to all within her charmed circle of friends, acquaintances, and loved ones, and she gave lavishly without thought of return. It is women such as these who win immortality in the hearts of their friends.

MONROE COUNTY

"Tempus fugit" and it is time to send my monthly communication. However, I have nothing of interest to communicate. Our doctors are well and no serious sickness in their homes has been reported to me. For this, I am sure, we are all very grateful.

We have been dodging the tax collectors (as well as collectors of all other kinds) until we might be taken for "escapes" or fugitives.

While we have no serious floods or overflows in this section, it has rained almost continuously throughout the winter. Farming is badly behind, but gardens being put in order. Our immediate vicinity will engage rather extensively in berry and peach culture. Crop diversification may help the situation somewhat. While we have a proven and rich gas field, no drilling operations are being carried on just now. However, some drilling will soon begin in eastern Monroe and western Alabama within a few weeks.

Dr. B. C. Tubb of Smithville has returned home after four or five months spent in post work at Tulane.

Northeast Mississippi Thirteen Counties Medical Society will convene at Booneville, Tuesday, 15th instant. We expect a great time. I hope to have a good report of this quarterly meeting in my next letter. I wish all my friends throughout the state might see us in action. Then there could be no doubt in any one's mind that we have the best society in the state.

Just one month until the Jackson meeting of the State Association. If finances will permit, I will try to "meet you there."

Good luck and goodbye.

G. S. Bryan, County Editor.

LEFLORE COUNTY

The Delta Medical Society will not meet at Greenwood on April 13th as announced, on account of the conflict in dates with the State Association. This meeting has been pretermitted by President Baskervill in consultation with the vice-presidents. The next meeting will be held in October.

Dr. and Mrs. John A. Crawford are the happy parents of a son, their first child, whom they have named John A., Jr.

Dr. George Baskerville has gone to Richmond, Va., on a ten days' visit to his sister.

Dr. J. P. Kennedy has gone to Philadelphia Pa., for a few days on business.

Dr. M. C. Wigginton of Phillip, has moved to Hammond, Louisiana.

W. B. Dickins, County Editor.

WINSTON COUNTY.

Dr. Bernard Hickman accompanied his wife to Rush Infirmary recently, for surgical treatment.

Dr. S. W. Pearson accompanied Travis Wilson to a Meridian Hospital for operative treatment.

Dr. W. W. Parke accompanied Harold Reed to a Meridian Hospital for treatment.

Dr. E. L. Richardson has had quite an ordeal with an outbreak of small pox the last month or two.

The doctors of Louisville hope to attend the lectures of Dr. McCord on the subject of obstetrics next week, a course of lectures to be held at Meridian.

We are hoping the hard experience the doctors are meeting with in collections, and the burden of charity work imposed upon us will create a greater sympathetic co-operation with each other.

M. L. Montgomery, County Editor.

The name of Dr. J. S. Ullman, Natchez, has just been placed on the roll in the Senior Group of the Southeastern Surgical Congress.

DID YOU KNOW?

That aside from a State Medical Association, we have a State Hospital Association?

Another opportunity is presented to you to attend a meeting which is always filled with many problems in which we should all take an interest. All of us have occasion to use the hospitals in our State. How many take an interest in them? The Mississippi State Hospital Association holds its meetings at the Edwards Hotel in Jackson on Monday, April 11th. I appeal to all who can, to come to Jackson a day early and attend this meeting.

John C. Culley, President,

Mississippi State Medical Association.

TAKING STOCK

"Dear Mr. Editor:

"Just at this time, when all businesses are "taking stock" and studying ways and means so carefully, it may not be a bad idea for the Association to follow suit, just to see where we are going and what is the measure of our success.

"We may use as scales of measurement the membership of the Association and the attend-

ance at meetings—the first as a measure of our loyalty to the cause of organized medicine, the second as a means of estimating the interest taken in the work of the Association. As to membership, we can make an accurate comparison only numerically and that only as far back as 1908. But we do know that prior to that date we were fewer in numbers, and we also know that there were a good many more doctors living in the state than there are today.

"Of the twenty-four years that we have available for comparison, we reached the 1000 mark just ten times. Four of these years were 1927-8-9-30, the only four consecutive years that our membership reached 1000. In 1931 the figure was 975—not such an enormous loss when we remember how everybody is yelling "hard times." The truth is that it wasn't due to hard times so much as to slack organization in the larger societies, as was proved by two of them. These two, when confronted by such a condition, merely became more constructively active and actually increased their membership—notably in Adams County where it went, for the first time in the history of the society, to 100%; and in Neshoba where the vice-president, Dr. Hickman, apparently singlehanded, raised the figure from 42 per cent to 100 per cent in the course of a very few months.

"As to attendance—until recently, 1909 was our banner year, with 330 members and 16 guests—total 346. Last year we registered 387 members and 26 guests—total 413. Furthermore we had a larger attendance in 1930 than in 1929, and in 1929 than in 1928.

"These figures, of course, are far from perfection but we need not be ashamed of them with approximately 1450 eligibles in the state, we have in the past six years averaged slightly better than a thousand members of whom an average of 284 attended the annual meetings. The attendance shows up better than the membership. Only three times prior to the past six years did the attendance equal this average."

E. F. Howard, Historian.

ISSAQUENA COUNTY.

"Mayersville, Miss., March 11, 1932.

"Dear Doctor:

"I am enclosing you an item from Issaquena for your Association number of the Magazine. We are so near broke, up here that I cannot even get up any news items worth publishing, so I am just sending you this stale excuse. What little prospects we had were blasted by the late cold snap, which caught us with our trousers down.

"I regretted that I was not able to be at the last meeting of our Society, as I am one of the representatives to the State Meeting next month,

and, of course, I wanted to be there to get the feelings of our members on the important matters to be brought up before the House of Delegates. However, I will make it a point to get in touch with the membership before the Association meeting. We had Circuit Court here this week, the Board of Supervisors were in session, I was sick with an attack of flu, and the highway to Vicksburg was out of commission. Plenty of excuses!

"Yours truly,

W. H. Scudder.

It is with sorrow and the deepest sympathy that Issaquena County joins with Dr. and Mrs. J. B. Benton of Valley Park, in mourning the loss of their youngest son by drowning, on February last. He was a bright, manly little fellow of ten or twelve, a general favorite of the community, and of course the idol of his parents' hearts.

Dr. W. H. Scudder, Mayersville, is serving his fourth year as county chairman for Issaquena for the U. S. Citizens' Military Training Camps. Though the county allotment is only one man for each year, we have had the distinction of entering two men each year for the past three years.

This speaks for the mental and physical fitness of our young men. We are proud of them.

On account of their official duties at Mayersville, the County seat, neither was Dr. Benton nor Dr. Scudder able to attend the regular March meeting of our Three-County Medical Society.

They are both members of their county Board of Supervisors, and had to attend the regular monthly meeting of this body as well as to be present at the March term of their county Circuit Court. They both regretted keenly that they missed this meeting of the Society, as it was an important one, and the last meeting before the annual convention of the State Medical Association.

At the March term of the county Circuit Court referred to above, one of our local doctors was called to offer expert testimony in the trial of a murder case as to whether a man shot through the heart with a .44 calibre Winchester rifle ball could run forty odd yards before falling.

SCALES—BROWN.

"Again a Starkville doctor has come through with something that he is proud of. Enclosed clipping is self explanatory.

H. L. Scales.

"Mr. and Mrs. O. V. Hull, of Louisville, Mississippi, are announcing the marriage of their daughter Mrs. Julia Hull Brown, of Starkville to Dr. Hunter Ledbetter Scales, of Starkville.

"Dr. and Mrs. Scales were married Friday evening in the home of the Rev. E. F. Wright, pastor of the First Baptist Church in West Point, Mr. Wright officiating at the ceremony.

"The bride wore a spring model in brown with harmonizing accessories.

"Present at the ceremony were Mrs. Scales' sister, Mrs. W. W. Thompson, her niece, Miss Margaret Thompson and Hunter L. Scales, Jr.

"This wedding is one of wide interest, Dr. Scales being one of the leading physicians of this section. Mrs. Scales originally of Louisville, has for the past year been a resident of Starkville.

"Dr. and Mrs. Scales are at home in their residence on Montgomery Street."

WARREN COUNTY.

The Vicksburg Clinic has announced that Dr. Roland E. Cutts is associated with them in the capacity of Pediatrician. Dr. Cutts was formerly connected with the Mayo Clinic. Mrs. Cutts and their young son accompanied him here and they are located on Chambers Street.

Dr. and Mrs. Gus Street attended the recent meeting of the Southeastern Surgical Association at Birmingham. Dr. Street reports a splendid program and both enjoyed the trip.

E. H. Jones, County Editor.

SMALL POX.

In 1913 there were reported in Mississippi, 1,269 cases of small pox as against 37 cases reported in 1929. Vaccinations would have prevented them all. Who is responsible?

WOMEN'S AUXILIARY.

Mrs. S. M. Blackshear, Chairman of the Publicity Committee of the Women's Auxiliary of the Orleans Parish Medical Society calls attention to the program of entertainment to be provided for the ladies attending the meeting of the American Medical Association in New Orleans, May 9 to 13. Full particulars will be found on another page of this journal.

REGIONAL FRACTURE COMMITTEE

At a meeting in Memphis on February 8, a Regional Group for Mississippi was formed to co-operate with the General Fracture Committee of the American College of Surgeons.

This meeting was called by Dr. Willis C. Campbell, who is a member of the General Fracture Committee and an address was given by Dr. Charles L. Scudder of Boston, chairman of that committee. The group was organized with the following men present: Dr. A. G. Payne, Greenville, Chairman; Dr. T. E. Ross, Jr., Hattiesburg, Secretary; Dr. V. B. Philpot, Houston; Dr. A. Street, Vicksburg; Dr. L. B. Hudson, Hattiesburg; Dr. R. H. Clark, Hattiesburg; Dr. J. C. Culley, Oxford; and Dr. O. H. Beck, Greenville.

The following names were added, making a total of twelve: Dr. H. L. Rush, Meridian; Dr.

Frank H. Hagaman, Jackson; Dr. E. C. Parker, Gulfport; and Dr. M. H. McRae, Corinth.

The next meeting is to be held in Jackson in April during the sessions of the Mississippi State Medical Association.

T. E. Ross, Jr., Secretary.

DEATHS OF MISSISSIPPI PHYSICIANS.

James M. Shamburger, Toomsaba; sudden death January 1, 1932; Born at Toomsaba, August 31, 1855.

E. C. Lucas, Ebenezer; January 9, 1932, at Ebenezer; Born at Macon, February 11, 1861.

D. P. Butler, McCall Creek; result of injuries received in an automobile accident; January 13, 1932, at Jackson; Born Amite County, August 31, 1855.

Thomas A. Heath, Shiloh; pneumonia; January 18, 1932, at Shiloh; Born Copiah County, July 14, 1854.

Robt'r E. Higdon, Brookhaven; January 24, 1932, at Brookhaven; Born Copiah County, July 6, 1872.

COMMUNICABLE DISEASES.

For the month of January, 1932, the Bureau of Communicable Diseases of the Mississippi State Board of Health, reports 24 cases of typhoid fever, 112 cases of small pox, 116 cases of diphtheria. All preventable diseases! In addition there were reported 265 cases of pellagra, 86 cases of tuberculosis, and 93 cases of scarlet fever.

NESHOBA COUNTY.

All doctors of the county attended part or all of lectures given by Dr. J. R. McCord. Dr. McCord is a very able lecturer, his talk is short and to the point, instructive, and we are proud to get this series.

Dr. W. H. Banks is in active practice again after being confined for several days due to an acute cold.

A. L. Majure, County Editor.

CLAY COUNTY.

On February 6 a letter was received from our President, Dr. W. C. Spencer of Tupelo, in which he said I had been selected as County Editor for Clay this year. It was the 11th, however, that your letter of instructions came and for that reason, no report could be made for the March issue.

After going among the doctors of West Point for news items, I find that there are some three or four cases of smallpox in the county, but due to a vaccination campaign, no new cases are reported at this time. Some twelve hundred have been vaccinated already. All other communicable

diseases are on the decline, as reported by Dr. A. K. Naugle, Health Officer.

Drs. Deanes, Naugle and Ellis, all of West Point, have been slightly ill with colds, but neither of the trio were out of the office more than a few days.

There have been no weddings, births or deaths among the doctors and their families in Clay County recently—in fact a report of either would be history instead of news items at this time.

The Northeast Mississippi Thirteenth County Medical Society met in regular session in Booneville, on March 15th. This is the largest Medical Society in the State; always well attended by its membership and visitors. The programs are invariably of high order and the banquets are of the best.

I agree with you, Dr. Lippincott, about reporting abstracts of interesting cases, from hospital records. It is here, as well as attending society meetings that many physicians find something of real value in their work. Unfortunately at this time, there are no staff meetings being held at our local hospital.

None of our doctors have been away for post-graduate work or attended any outside society meetings for the past few months.

In the future, I shall be glad to report any and all matters of interest from this county.

Lon D. Dotson, County Editor.

ISSAQUENA-SHARKEY-WARREN COUNTIES MEDICAL SOCIETY.

The regular monthly meeting of the Issaquena-Sharkey-Warren Counties Medical Society was held at the Y. M. C. A., Vicksburg, on March 8, at 7 P. M. The scientific program included the following:

1. Gastro-Intestinal Respiratory Symptoms Secondary to Sinus Disease, with case report.—Dr. C. J. Edwards.

Discussed by Drs. J. A. K. Birchett, Jr., Dr. G. M. Street, Dr. H. S. Goodman, and Dr. G. C. Jarratt. Dr. Edwards closed.

2. "Reidel's Struma," with case reports (illustrated by lantern slides)—Dr. J. A. K. Birchett, Jr.

Discussed by Drs. G. M. Street, L. J. Clark, L. S. Lippincott. Dr. Birchett closed

3. Some points of the Management of Gall-bladder and Biliary Tract Diseases.—Dr. A. Street (Read by Dr. G. M. Street.)

The program was arranged by Dr. J. A. K. Birchett, Jr., Vicksburg, Chairman of the Committee on program.

The meeting closed with a dutch lunch.

The next meeting of the society will be held

at the Y. M. C. A., Vicksburg, on Tuesday, May 10, at 7 P. M.

"Ecu, Mississippi, March 6, 1932.

"Dr. Leon S. Lippincott,

"Vicksburg, Mississippi.

"Dear Friend:

"It has been a pleasure to serve with you the best I could and I shall continue to read the 'Mississippi Doings' with much interest. If anything comes up I may write in occasionally any way and if I should have any ideas about Charity Hospitals for our State I may take the liberty to send it for publication.

"I have enjoyed my year's association with you, dating from our meeting last year at Jackson and hoping to see you there again at our State meeting, I am,

"Yours truly,

"Eliam B. Burns."

NATIONAL HOSPITAL DAY—MAY 12.

National Hospital Day, May 12, undoubtedly will be used by many hospitals this year to impress on the public and visitors the unusual need for greater support of the institutions. Those hospitals which have had an unusually low occupancy of beds priced at or above cost and a very high occupancy of free and part-free beds, undoubtedly can gain some interest by presenting facts of this kind to visitors on May 12.

Hospital Associations interested in gaining further support of the proposal to utilize existing civil hospitals for certain types of veteran patients, instead of building new government hospitals, will have an opportunity to focus attention on this program in connection with National Hospital Day publicity.

Although little has been said about developments thus far, the National Hospital Day Committee of the American Hospital Association already has received acceptances from state chairmen in 38 states, and believes that the co-operation from radio, national advertisers and others will be even greater than last year when it was estimated that 775 different radio programs mentioned National Hospital Day and the work of hospitals.

Dr. Malcolm T. MacEachern, Director of Hospital Activities:

"The public has recently heard and read much about hospitals, by writers who are sometimes uninformed and misinformed. Some of the magazine and newspaper articles which have been written have been good, but many are quite bad. ***As a result of such articles Mr. Citizen is confused. In fact, his perspective of hospitals is sadly out of focus.

"National Hospital Day is your opportunity to

give every citizen in your community the truth and nothing but the truth, to borrow legal terminology, about your hospital. This is the time to tell people of your locality not only the actual facts about hospital costs and charges, but, what is more important, the value of hospital service to the community. This is the day to talk of dividends, not monetary dividends, but dividends in human lives, the most precious kind of returns on an investment. An appropriate keynote for the day might be expressed in a visible motto: 'Our hospital pays dividends—dividends in human lives.' Indeed the dividends paid by scientific medicine and hospitals are so astoundingly high that they are not comparable with anything in the commercial world."

All hospitals of Mississippi are urged to take part actively in the National Hospital Day Program. Hospitals desiring suggestions should communicate immediately with Mr. W. Hamilton Crawford, South Mississippi Infirmary, Hattiesburg, chairman of the Mississippi Committee.

SPECIAL MEETING OF HOUSE OF DELEGATES.

Elsewhere in the JOURNAL members of the House of Delegates will find notice of a special call to meet at 5:30 P. M., at the Edwards Hotel, Jackson, on April 11th. Every member is urged to attend this meeting, which will require only a few minutes. Following this you will have an opportunity to attend the banquet of the State Hospital Association.

John C. Culley, President.

HONOR ROLL FOR MARCH.

E. F. Howard, Mrs. Ada R. Bell, W. B. Dickens, J. S. Hickman, B. B. Martin, G. S. Bryan, L. L. Minor, M. L. Montgomery, S. B. McIlwain, E. B. Burns, R. P. Donaldson, W. C. Spencer, W. H. Frizell, J. S. Ullman, S. W. Johnston, S. F. Strain, E. H. Jones, T. L. Bennett, W. C. Walker, T. J. Brown, F. J. Underwood, Mrs. D. J. Williams, F. M. Acree.—23.

HONOR ROLL FOR APRIL.

J. C. Culley, T. M. Dye, D. W. Jones, E. H. Jones, E. L. Wilkins, E. F. Howard, J. W. Lucas, L. L. Minor, M. W. Robertson, H. Lowry Rush, J. W. D. Dicks, W. Hamilton Crawford, J. S. Ullman, Mrs. M. H. Bell, J. W. Lipscomb, F. J. Underwood, A. H. Little, H. R. Fairfax, C. W. Patterson, R. P. Donaldson, W. A. Johns, S. B. McIlwain, T. L. Bennett, G. S. Bryan, W. B. Dickens, M. L. Montgomery, W. H. Scudder, H. L. Scales, Mrs. S. M. Blackshear, T. E. Ross, Jr., A. L. Majure, Lon W. Dotson, E. B. Burns, I. C. Knox.—34.

YOUR EDITORS THANK YOU.

BOOK REVIEWS

Radiological Study of the Para-Nasal Sinuses and Mastoids: By Amedee Granger, K. C. B.,

K. C. I., M. D., F. A. C. R. Philadelphia, Lea & Febiger, 1932. pp. 186.

This splendid book on para-nasal sinuses and mastoids will find many interested readers. Its style is pleasing and the text as a whole deserve commendation. The book lends itself to easy manipulation, when opened it lies flat so that one studying it or comparing it with a book of reference, will find that it remains opened at the place where interest is being manifested. The arrangement of the illustrations is ideal. It permits easy comparison of two pictures of the same individual by being placed near each other. Blank spaces are filled with legends, clearly explaining the subject matter.

The author's experience in sinus diseases extends over many years, and it is but proper that he should put into book form his profound knowledge of this subject in order that those less fortunate may be benefitted.

There are 186 pages in this book, divided into two parts. Part I deals with para-nasal sinuses. Certain experimental studies are presented which appertain directly to sinus diseases. We also find in this part of the book a clear explanation of the technic used by the author, showing the ease with which his work can be duplicated. Special emphasis is given to the Granger line, by which the author explains its importance in the diagnosis of sphenoidal diseases. Part II comprises an elaborate and painstaking technic, also how to interpret the roentgen finding in certain diseases of the mastoid. Particular emphasis is given to the diagnosis of mastoiditis in infants.

We are not in agreement with the author in the treatment of mastoiditis by means of the roentgen ray, and until further general investigation is undertaken along this line, we will feel that such cases are better treated by the otolaryngologist.

The book is profusely illustrated by beautiful roentgenograms of the para-nasal sinuses and mastoids. The author is to be complimented on the manner in which this book is written, and if his technic is carefully observed, roentgenographic results will be obtained similar to those presented by him in his book.

LEON J. MENVILLE, M. D.

Notes on Children's Nursing: By Marguerite C.

Erxleben, R. N., B. S. Philadelphia, F. A. Davis, 1931. pp. 242. Price, \$2.00.

This is a clearly written handbook on nursing procedure for children. It is a practical reference. The book is detailed and well outlined. The chapter on premature care is unusually good

and complete. The book has a little too much detail of the individual hospital procedure rather than the general, but nurses will find their functions in the care of the child clearly defined.

SUZANNE SCHAEFER, M. D.

The Principal Nervous Pathways: By A. T. Rasmussen, Ph. D. New York, The Macmillan Co. 1932. pp. 73.

Consisting of twenty-eight quarto plates, each accompanied by text discussion, this volume may be described as an atlas of functional anatomy of the nervous system. The plates are schemata, many in the form of three-dimensional projections, of the more important nervous pathways, grouped in functional systems. In his preface the author points to the regrettably frequent lack of understanding of neuro-anatomical essentials as resulting from two factors: the complexity of the subject itself and the limited time available for its study. By implication, though not by explicit statement, it appears that "big books and little teaching" enter as a third factor. The book, offered as an aid in these difficulties, is compact because it embodies carefully selected material, chosen for its practical importance; the treatment is simple, and the correlation of structure and function renders the subject matter meaningful.

HAROLD CUMMINS, Ph. D.

Emergency Surgery: By J. W. Sluss and others. Philadelphia, P. Blakiston's Sons & Company. November, 1931.

The fact that this is a fifth edition speaks well for the book. "Emergency Surgery" was written for and addressed to the general practitioner, "Not to instruct his leisure hour but in the hope sometime to serve as a guide out of certainty in a time of stress." It is intended to give ready answers in emergency situations. It considers conditions that do or may demand immediate surgical intervention; *e. g.*, hemorrhage, wounds, fractures, foreign bodies, osteomyelitis, mastoid abscess, abdominal catastrophies, et cetera. The material is presented with little theory and from a practical viewpoint. Perhaps one of the book's best claims for attention is that it recalls the conditions which may exist as emergencies. It tells how they may be dealt with and describes briefly the steps in operative procedures. One might disagree with some minor matters of technic recommended by the authors, but, in general, the methods outlined are reliable and the book may be read with advantage by every man just entering or long engaged in general practice.

The chapters on fractures are very well treated and the authors' recommendations of methods in

handling fractures are sound. One is disappointed, however, that in the treatment of fractures of the femur they do not mention Russell's method, which is fast becoming recognized as most efficient and should be the most generally used method of treating fractures of the shaft.

"Emergency Surgery" recalls many situations with which one may be confronted in which a prompt decision must be made and an acceptable method of handling such conditions is outlined. The style is pleasing and facile, and the text is devoid of unnecessary theory and quotations, making it very practical. The illustrations, though numerous enough, are only mediocre in quality.

HOWARD R. MAHHORNER, M. D.

Asthma and Hay Fever in Theory and Practice:

By Arthur F. Coca, M. D., Matthew Walzer, M. D., and August A. Thommen, M. D. Springfield, Ill., Chas. C. Thomas C. 1931. pp. 851.

The book proves a clever method of presenting a trinity of extensive subjects, Hypersensitiveness, Asthma and Hay Fever, in a clear, pleasing and practical way. Each section is edited by experts. The reader will not find much new material, but this will open to him new fields for research as the subject yet holds a good deal of mystery and allergy is still proving elusive.

The section of hypersensitiveness particularly recommends itself to the laboratory worker. In the critic's opinion, the part dealing with asthma is by far the most satisfactory and complete. The last one-third devoted to Hay Fever has an elegant, pleasing, and up to date historical sketch of pollen allergy. The caution of refraining from surgical intervention in the nose at the time when the atmospheric pollen is concentrated is particularly timely.

NARCISSE F. THIBERGE, M. D.

Surgery of the Chest: By George F. Straub, M. D., F. A. C. S. Springfield, Ill., Charles C. Thomas. 1932. pp. 475.

The work by Straub is well done, is nicely arranged, and is profusely illustrated. The essential points concerning the normal and pathological physiology of the thoracic viscera and the consideration of therapeutic artificial pneumothorax are presented by H. L. Arnold in a concise and clear manner. A considerable portion of the book is devoted to the diagnosis of thoracic lesions, especial attention being paid to roentgen ray and endoscopic examinations. The various surgical procedures used in the treatment of endothoracic disease are discussed in detail. The illustrations, which are done by the author himself, particularly portray the point which is desired.

The chapters on surgery of the heart and of the esophagus are especially complete, whereas those

dealing with the diaphragm and mediastinum are less complete. The book is one which should be in the library of every surgeon who does any endothoracic work.

ALTON OCHSNER, M. D.

The Essentials of Psychiatry: By George W. Henry, A. B., M. D. Baltimore, Williams & Wilkins Co. 1931. pp. 304.

The Essentials of Psychiatry, by George W. Henry, published by Williams & Wilkins Company, should fill a long felt want. It is well written, and, as the title suggests, covers the essentials of psychiatry briefly and concisely, taking in all the various phases not only of psychoses but psychoneuroses. The chapter on psychiatric treatments is especially to be mentioned, in that he gives sufficient detail to be understanding but still adheres to his title, in that he gives the essentials only. He also has a chapter on psychiatric nursing by Miss Adele Poston. In short, it is a work which would be an addition to anyone's library, but especially should it be useful for students and to the general practitioner who needs a book that he might refer to for brief descriptions of conditions and for the proper methods of handling them in emergencies.

E. MCC. CONNELLY, M. D.

Physicians' Manual of Birth Control: By Antoinette F. Konikow, M. D. New York, Buchholz Pub. Co. 1931. pp. 245.

Physicians being confronted by patients who have the legal and moral right to birth control information will find Dr. Antoinette F. Konikow's book, *Physicians' Manual of Birth Control*, a practical text of approved and safe methods of technic. In a very understandable manner, the author describes the various pastes, pessaries, suppositories, etc.; indications and contra-indications according to various anatomical conditions, and also methods applicable in variance with the degree of intelligence presence.

ADOLPH JACOBS, M. D.

PUBLICATIONS RECEIVED.

William Wood & Company, New York: Handbook of Tropical Fevers, by N. P. Jewell, M. D., D. P. H., F. R. C. S. I., and W. H. Kauntze, M. D., D. P. H.

P. Blakiston's Sons & Company, Inc., Philadelphia: Diseases of the Kidney, by W. Girling Ball, F. R. C. S. (Eng.), and Geoffrey Evans, M. D., F. R. C. P. (Lond.).

Charles C. Thomas, Springfield: Intracranial Tumours, by Harvey Cushing.

Paul B. Hoeber, Inc., New York: A Clinical Survey of the Abdominal Cavity and Peritoneum, by Edward Meakin Livingston, B. S., M. D.

New Orleans Medical

and

Surgical Journal

Vol. 84

MAY, 1932

No. 11

INFECTIOUS MONONUCLEOSIS.*

(GLANDULAR FEVER.)

SAM HOBSON, M. D.,

NEW ORLEANS.

In 1885, Philatow first made allusion to an idiopathic lymph adenopathy. After he recorded his observation, numerous articles on the subject appeared. In 1889, Pfeiffer described the condition as a new clinical entity under the name "Glandular Fever." In 1907, Turk described the adenopathy as accompanied by blood changes consisting essentially of lymphocytosis and the occurrence of peculiar abnormal white blood cells. Since that time, in England, on the Continent, and in this country numerous small outbreaks characterized by lymph adenopathy and changes in the mononuclear white blood cells have been described. At present, even though it is rather well established that there occurs a mononucleosis with lymph adenopathy, there is still considerable confusion regarding the exact status of the condition and the designation of glandular fever as a distinct entity is in some circles still considered dubious. Still the epidemiology, symptomatology and clinical features of glandular fever are fully enough described in the literature, even though the pathology of this alleged entity is unknown and its etiology not determined, to make it of interest to most physicians. My recent observation of four cases of glandular fever especially prompted this presentation.

BACTERIOLOGY.

Various authors have reported the isolation of diphtheroid forms, of various staphylococci, of spirochetes and of fusiform organisms from glands removed aseptically from sufferers of the disease. Baldrige and his associates intensively studied numerous organisms so isolated and, after extensive agglutination and absorption reactions, concluded that the etiology of the condition is still unknown.

PATHOLOGY.

Since the disease is so rarely fatal, few observations of its pathology are recorded. Lymph glands removed from patients at varying intervals during the disease show marked lymphoid hyperplasia with compression of the sinuses and distention of the capsule. Some germinal centers show mitotic figures, as do some of the lining cells of the lymph sinuses and those in the cords of somatic cells. Occasional eosinophils can be noted. Marked irregularities in the nuclei of lining sinusoidal cells and lymphatic cord cells with lobulated and indented nuclei are common. There is usually no increase in the fibrous reticulum and no necrosis at any stage of the disease. Longcope, Sprunt and Evans point out the similarity of the lesions to those seen in Hodgkins disease. Accumulation of small lymphocytes as stressed by Downey is not a prominent feature as a rule.

EPIDEMIOLOGY.

Reports of epidemics of glandular fever, usually affecting children, are numerous. Thus Williams, Fisher, Jackson, Hesse, Korsakoff, Gilbert and Coleman, and Le-

*Read before the Louisiana State Medical Society, New Orleans, April 14-16, 1931.

mann have all reported outbreaks. It is extremely probable that during outbreaks many cases are so mild as to be unrecognized. Most authorities consider the faucial and pharyngeal tonsils as the portal of entry of the causal factor although some observations incriminate the gum margins or the gastro-intestinal tract as sources of the infection.

SYMPTOMATOLOGY, PHYSICAL OBSERVATION AND CLINICAL COURSE.

Fever, enlarged glands, headache, general malaise, large tender glands, and sore throat are the outstanding symptoms noted. These symptoms may manifest themselves in all degrees of severity. The only noteworthy physical observation as a rule is that of enlarged glands, these in the order of frequency being the post-cervical, axillary, sub-angular, sub-maxillary, inguinal, epitrochlear and sub-mental. The number and distribution of enlarged lymph glands is most valuable and, at times, it is necessary to institute most careful search in order to discover them, while in some cases the contour of the neck is entirely lost and the axillary spaces and groins are distended with masses of tremendously enlarged soft, tender glands. In some cases, the spleen or the liver is enlarged but in others neither one nor the other is enlarged. The syndrome is usually ushered in with high fever, generally of the septic type. Chills are common. Headache, prostration, nausea, vomiting, sweating, weakness and the other symptoms more or less common to all severe infections are prominent. In some cases the onset is with fever, sore throat and membranous angina. In another type, the onset is with slight fever and slightly enlarged glands with no throat symptoms. Again the initial symptoms may be entirely absent with the glandular enlargement appearing later. Finally, there is a group of cases with insidious onset and mild symptomatology in whom enlarged and slightly tender glands are found only on extremely careful examination.

BLOOD CHANGES.

It is in the blood that the interesting abnormalities of glandular fever are found. As a rule, there is leukocytosis sometimes during the course of the disease, usually at its onset. In the vast majority of cases the increase is only moderate, usually not over 20,000 cells per cmm. Total white blood counts below the average are at times noted, especially during convalescence. The interesting features of the blood findings, however, are the character and number of the mononuclear cells encountered. American clinicians and hematologists, in contradistinction to the German authorities, consider the mononucleosis as due to an absolute increase in lymphocytic cells many of which are forms not commonly seen in the blood of normal subjects. The mononucleosis gradually develops as the fever subsides. However, it must be noted that in many cases, especially during the course of epidemics, there is an initial polymorphonuclear increase. The abnormal mononuclear cells usually encountered vary in size from the ordinary small lymphocyte to cells that are even larger than that group ordinarily classed as endothelial leukocytes. The exact derivation of these cells is still under discussion, some believing that they are lymphogenic in origin, others considering them as endothelial or reticulo-endothelial in nature.

DIFFERENTIAL DIAGNOSIS.

The various modes of onset and the persistence of the enlarged glands are the factors mostly responsible for difficulty in diagnosis. The cases which present septic types of onset must be differentiated principally from acute leukemia (this at times being especially difficult), acute Hodgkins disease, miliary tuberculosis, influenza, dengue fever, and tularemia. Those cases associated with fever and membranous angina may sometimes be mistaken for diphtheria, scarlet fever, Vincent's angina, and follicular tonsillitis. Cases with only moderate fever, tender glands and moderate constitu-

tional symptoms may be mistaken for typhoid fever and mumps. Those cases in which the adenopathy persists over a period of time must be differentiated from Hodgkin's disease, lympho-sarcoma, tuberculous adenitis, chronic lymphocytic leukemia and syphilis.

TREATMENT.

The treatment of glandular fever is symptomatic. Rest in bed is essential and isolation as completely as possible to prevent the spread of the infection should be instituted. The diet should be a light, easily digested one and liquids should be given freely. Local applications to the swollen glands are of little value. However, hot or cold applications are recommended by some and often give considerable relief. Sodium bicarbonate in proper doses should be administered. Many advise the use of antipyretics such as acetylsalicylic acid. Tepid sponges followed by alcohol rubs are helpful in cases with high temperature. During convalescence, fresh air and a well balanced diet are essential as the patient is often depressed and usually has a lowered resistance. Iron and copper therapy is indicated with cases showing much secondary anemia.

SUMMARY.

Glandular fever is a fairly well defined symptom complex, infectious in origin, of unknown etiology, generally of short duration and characterized by fever and large lymph glands, sore throat and the occurrence of numerous abnormal blood cells. Neither the casual organism nor its portal of entry has been proved nor has the pathology been sufficiently studied, even though numerous descriptions of glands excised during the course of the disease appear in the literature. The symptomatology is similar to that of acute infectious disease. The only physical sign that may be of value in reaching a differential diagnosis is that of the enlarged tender gland usually occurring in the region of the neck. At the onset of the disease total leukocytic counts are usually above normal and below normal during convalescence. In some cases the increase in

the polymorphonuclear leukocytes occurs at the onset. Sometimes during the course of the disease, the blood shows a rather marked increase in abnormal mononuclear cells, some of which abnormal cells are lymphoid in nature while others are monocytes or endothelial leukocytes. The diagnosis of glandular fever is often difficult because of its resemblance to other acute infections and because so very many mild cases are encountered. Even though the question of the symptom complex as a distinct entity remains open, the best name for the condition seems to be glandular fever.

DISCUSSION.

Dr. Chaillé Jamison (New Orleans): Infectious mononucleosis is important merely from the standpoint of being recognized and not confused with other far more dangerous syndromes.

We must remember, and often we remember it entirely too late, that infectious mononucleosis never kills. Therefore when we can make that diagnosis our prognosis is absolutely good.

I think a point that helps us in the recognition of this disease is that clinically, as a rule, the patient does not impress one as being very sick. We are very prone at the present time to put a great deal of reliance on laboratory findings, and you should be warned that the laboratory findings, in the disease are likely to be misleading and that we cannot lean upon them as we so often would like to do. In this day of biopsies it is quite common for us to remove large glands and remove them fairly promptly. I believe the pathologist will confirm my statement that it is extremely difficult to differentiate such glands from other diseases that might confuse us and that the biopsy, the histological study of the gland, does very little good.

The disease that we are most likely to confuse infectious mononucleosis with, I think, is acute lymphatic leukemia. That is certainly a serious error because in an acute lymphatic leukemia we have to give an absolutely bad prognosis for only a few weeks of life.

I think that only one or two points should be emphasized. First of all, the disease is not a serious one. The prognosis is absolutely good. The clinical appearance of the patient is not that of a person not seriously ill, and we should also bear in mind that the laboratory is very likely to actually mislead us. I have seen the diagnosis of leukemia made several times in this disease.

Dr. Rigney D'Aunoy (New Orleans): There is one point that I believe deserves repeated em-

phasis even though Dr. Hobson brought it out and Dr. Jamison stressed it, and that is the difficulty of arriving at a diagnosis of infectious mononucleosis especially in the early course of the disease, even though full use be made of hematological examinations.

It is a fact that fully twenty per cent of the cases, and especially but not exclusively the cases that have high temperature at the onset, will show an increase in the polymorphonuclear elements, the mononucleosis coming on later. Such cases are very prone to be, especially when they are sporadic cases, regarded as upper respiratory tract infections, the adenopathy supporting such a clinical diagnosis.

As to the derivation of the abnormal blood cells which we find at one time or another in the course of infectious mononucleosis, I believe we can safely say, even in spite of such helps as the oxydase reaction and McJunkin's and other staining methods, that we do not know with certainty where these cells come from. Personally, I think they come from two sources, being lymphogenic and endothelial or reticulo-endothelial in origin. I base that opinion on the fact that careful study of glands removed during the course of infectious mononucleosis will show that the germinal centers, as well as the lining endothelium of lymph spaces, show the cells which we recognize as more or less pathognomonic of infectious mononucleosis. However, the laboratory diagnosis is by no means simple and each case requires considerable study, and especially correlation with the clinical features presenting themselves during the course of the disease.

Dr. I. I. Lemann (New Orleans): Glandular fever occurs not only in epidemics but also in sporadic cases. It is chiefly in the latter that we are confronted with the difficulties in diagnosis that have been repeatedly stressed by the previous speakers. Some years ago I had an opportunity of observing a small epidemic. I have the impression that the disease has continued in an endemic form in the institution from which I reported the epidemic for one of our present fourth year medical students, resident in this institution, has told me that the boys in the orphanage continue to have adenopathy and to have from time to time small outbreaks of unexplained fever. This leads me to stress the fact that the adenopathy caused by glandular fever may continue fairly indefinitely. I took the opportunity of going over to the orphanage in which this epidemic had occurred, about a year later and made a survey of the boys at that time, the boys we had seen and the other boys. We were struck by the fact that a large majority of the boys had adenopathy. Practically all of the ones we had seen in their acute stages still had their

enlarged glands. I think that is an important point because one might fear, on account of the persistence of the adenopathy, that we were dealing with some very severe disease.

Another point that I would like to emphasize is the varying blood picture. Some allusion has been made to that, but I think it deserves still further emphasis. I would say that there was no particularly characteristic blood picture. In a given patient it varies from a leukocytosis to leukopenia in the course of the same attack. In some cases we have the mononucleosis that has been referred to; in other cases, unless we happen to examine the blood at the particularly stage when the mononucleosis occurs, we may altogether miss it. It is my impression that if we are to make any progress in the study of the hematology of the disease we must make many blood counts throughout the attack, and then we shall probably find that there is a natural course from leukocytosis through normal to leukopenia, or perhaps the reverse. Some of these cases are characterized by fairly well marked eosinophilia. A recent sporadic case had an eosinophil count up to ninety per cent.

I am quite in accord with what Dr. Hobson and Dr. Jamison have told you, namely, that we are in very grave danger of mistaking this very mild and innocent disease for very serious blood dyscrasia, such as acute leukemia or Hodgkin's disease. We can only tell by the fact that these patients are not very ill, and that in the course of a few weeks they are entirely well.

Dr. J. N. Brown (Washington): I just want to say while this subject is being discussed that it has been my experience that 100 per cent of the Negro population of this state have enlarged lymphatic glands, and I want to say that I would guess, without any statistics or records, ninety per cent of the children of Louisiana have them.

I don't believe I have ever examined a child for any trouble that I didn't find enlarged lymphatic glands. I want to say that I believe about sixty per cent of the adults I examine have these enlarged glands.

I want to ask the essayist if we are justified in making a diagnosis of all these cases as mononucleosis.

Dr. W. S. Kerlin (Shreveport): About ten days ago a young man of about nineteen years came into the clinic with a history like this: Twenty-four hours preceding his consulting us he noticed pain and stiffness in the left side of his neck one morning. A few hours later he noticed an enlargement, and that was why he came to the clinic. On examination you could palpate the postcervical glands and the preauricular glands were palpable and enlarged. They were somewhat tender. There was an enlarged and tender

gland size of large marble in left neck. He also complained of some pain in his throat. The leukocyte count was about 13,000 with about forty-six per cent monocytes, that is, we took them to be monocytes.

We made a probable diagnosis of infectious mononucleosis, but left a loophole by stating we didn't know just what this condition could be and it might be confused with something more serious. We asked him to return the following day for follow up blood examinations, and he did so. The count was about the same as the preceding day. The following day there was decided change in the appearance of the white cells, taking on more the appearance of a leukemia of the myeloblastic type, the cells resembled very closely promyelocytes. The blood had taken on such a change that we felt we were probably dealing with a leukemia of the myeloblastic type. A skiagraph of the chest did not show any glandular enlargement.

We followed him up five or six days, and the blood then reverted back to the monocytic type.

As Dr. Jamison mentioned, we cannot be too sure about the diagnosis of these conditions, and the laboratory picture will confuse us quite frequently. I brought some of these slides down to Dr. Johns for his interpretation but I haven't heard from him yet.

NOTE—This case finally proved to be infectious mononucleosis. The white cells were perfectly normal at the end of three weeks and the cervical and axillary glands were normal at the end of one month.

Dr. Sam Hobson (closing): As Dr. Jamison said, it is a disease that is not fatal but a disease that sometimes has a rather long convalescence in that the glands do not clear up as early as the patient would like. I have a patient now who has been sick since December and still has a great deal of discomfort with these enlarged, swollen glands in the neck. He is better in every other way but these glands are still giving considerable trouble.

In answer to the doctor's question as to whether all cases of lymph adenopathy should be diagnosed infectious mononucleosis, in cases with the large glands the symptomatology and blood changes as outlined, I believe you are justified in making a diagnosis of infectious mononucleosis.

BIBLIOGRAPHY.

1. Filatow, N. Lectures on the Acute Infectious Diseases of Children, 1885.
2. Turk, W. M.: Septische Erkrankungen bei Verknümmung des Granulozytensystems. Wien. klin. Wchnschr. 20:157, 1907.
3. Longcope, W. T.: Infectious mononucleosis (glandular fever) with a report of ten cases, Am. Jour. Med. Sc., 164:781, 1922.

4. Sprunt, T. P. and Evans, F. A. Mononuclear leukocytosis in reaction to acute infectious (infectious mononucleosis), Bull. Johns Hopkins Hosp. 31:410, 1920.
5. Downey, H. and McKinlay, C. A.: Acute lymphadenosis compared with acute lymphatic leukemia, Arch. Int. Med. 32:82, 1923.
6. Jamison, C. S.: Glandular fever, New Orleans Med. & Surg. Jour. 75:346, 1923.
7. Pfeiffer, E.: Drusenfeber, Jahrb. F. Kinderh. 29:257, 1889.
8. Kornsakoff, N. S.: Beitrage zur Lehre des Drusenfiebers, Arch. f. Kinderh. 41:321; 42:193, 1905.
9. Lublinski, W.: Beitrage zur Frage vom Drusenfeber, Ztschr. f. klin. Med. 62: 170, 1907.
10. Neumann: Glandular fever in childhood, Abst. Arch. Pediat. 11:691, 1894.
11. Marchand, F.: Ueber ungewöhnlich stark Lymphocytose im Anschlus an Infektionen, Deutsches Arch. f. klin. Med. 110:359, 1913.
12. Lemann, I. I.: An outbreak of glandular fever. New Orleans Med. and Surg. Jour. 81:187, 1923.
13. Jackson, G. S.: The glandular fever of childhood, Lancet 2:979, 1897.
14. Coon, H. M. and Thewlis, E.: Infectious mononucleosis, Wisconsin M. J. 21:191, 1922.
15. Bloedorn, W. A. and Houghton, J. E.: The occurrence of abnormal leukocytes in the blood in acute infections, Arch. Int. Med. 27:315, 1921.
16. Williams, D.: A note on the glandular fever of childhood, Lancet 1:160, 1897.
17. Coutts, J. A.: The glandular fever of childhood, Lancet 1:346, 1897.
18. Fisher, T.: The glandular fever of childhood, Lancet 1:407, 1897.
19. Chapman, C. W.: The glandular fever of childhood, Lancet 1:555, 1897.
20. Matheson, J. K.: Glandular fever, Lancet 1:192, 1904.
21. Byers, J. W.: Glandular fever, Lancet 1:84, 1904.
22. Hesse, B.: Zur Casuistik des Pfeiffer'schen Drusenfiebers, Jahrb. f. Kinderh. 42:28, 1896.
23. West, J. P.: An epidemic of glandular fever. Arch. Pediat. 13:889, 1896.
24. Tidy, H. L. and Daniel, E. C.: Glandular fever and infective mononucleosis, Lancet 2:9, 1923.
25. Guthrie, C. C. and Pessel, J. F.: An epidemic of "glandular fever" in a preparatory school for boys, Am. Jour. Dis. Child. 29:492, 1925.
26. Gilbert, Ruth, and Coleman, M. B.: Laboratory findings in an epidemic of glandular fever, Am. Jour. Hygiene 5:35, 1925.
27. Hopmann, R.: Akute Infektiöse Stammzellenvermehrung im Blute mit Heilung, Deutsches Arch. f. klin. Med. 142:196, 1923.
28. Landon, J. F.: Conditions simulating acute lymphocytic leukemia (infectious mononucleosis: tuberculosis) Am. Jour. Med. Sc., 170:37, 1925.

RESULTS OF WORK DONE ON FRACTURES OF PATELLA FOR PAST THIRTY-SIX YEARS, WITH CONCLUSIONS.*

E. DENEGRE MARTIN, M. D.

NEW ORLEANS.

Although I have devoted much time and work to this subject for the past thirty-six years, my first paper did not appear until 1900. No attempt will be made in this monograph to review this work in detail, nor that of other authors who have written extensively on this subject; nor will any effort be made to discuss the treatment of fractures of the patella, prior to the adoption of the open method, as all other procedures have become obsolete. It is understood, of course, that any physician should know how to apply a posterior splint and figure of eight bandage to be used until the case can be taken to a competent surgeon.

To properly treat fractures of the patella, the following facts must be borne in mind:

1. The patella, though a small sesamoid bone, plays a most important role in the movements of the knee joint and the stabilization of the leg. It is inserted into the fibres of the quadriceps tendon and patellar ligament, forming a fulcrum, and only when in perfect continuity is the integrity of the knee joint preserved.

2. The quadriceps, patella, and the ligament form a lever of the first degree; force



Fig. 1. Showing method of introducing wire—after suture of capsule.

*Read before the Orleans Parish Medical Society, March 9, 1931.



Fig. 2. Result good—iron wire used. Taken 21 years after operation.

is applied from the quadriceps through the patella as a fulcrum and the patella ligament which is attached to the weight or leg. The quadriceps femoris is composed of four muscles, the rectus femoris, the vastus externus, internus and crurerus, and is the strongest muscle in the body, capable of exerting a tremendous force.

3. When the tendon of the quadriceps is ruptured at its insertion to the patella, or when the tear extends to its lateral fibers, with or without fracture of the patella, the use of the patella as a fulcrum is destroyed and the function of the knee joint is impaired in proportion to the separation of the fragments or the tilting of the patella. This fact has been recognized by many surgeons in the past but, so far as I can ascertain, has never been fully explained. Some state that it is only necessary to suture the lateral fibers of the ligament to hold the patella together. This is not correct, for this alone will not hold the fragments in close and firm apposition. Some form of fixation must be applied which will hold the fractured ends close, firm, and for an indefinite period of time while ossification is taking place.

4. Firm union requires several months, too long to depend upon absorbable sutures



Fig. 3. Result good—iron wire used. Taken 22 years after operation.

which must be reinforced by external splints; silver wire, No. 20, the size used as a rule, is brittle and is capable of holding a load of 28 pounds only; copper wire is a little stronger, holding a load of 33 pounds; this too is brittle and will also break in the twisting. Annealed iron wire, No. 20, will hold a load of 78 pounds and is not brittle. This is the wire which should be used in all bone work.

5. As 65 per cent of all fractures recur within the first twelve months, the material used should last indefinitely, as the fragments of bone must be relieved of all strain until bony union has occurred. If ossification does not take place, the fibrous bands will stretch and finally so impair the use of the limb as to result in permanent partial disability.

6. The use of absorbable or unreliable material of any kind, should be abandoned as it requires at least four months to insure bony union, and is even then doubtful, a refracture adding just so much more to the uncertainty of the time of convalescence.

With all these facts in mind, I finally worked out the following technic: As the fragments must be in perfect apposition and in the closest contact, open reduction is absolutely necessary. The approach is best made by a transverse incision over or near the line of fracture; clots removed, intervening soft tissue trimmed off, and the ligaments and capsule sutured with

chromic gut and as snugly readjusted as possible, in order to place the fragments in normal position; this, of course, differs in no way from any method employed in open reduction.

In order to secure the position, and especially to maintain it, a fixation splint must be added. This is done by transfixing the quadriceps tendon and patella ligament, with a No. 16 annealed iron wire, introducing it as close to the patella as possible, bringing the ends together and tightened; a mattress suture is formed and the two sides of the wire lay across the top of the patella about $\frac{3}{4}$ of an inch apart; all of the slack is taken out of the wire by twisting (and there is no danger of breaking), the top edges of the patella are brought in the closest contact and the strain on the sutured ligament is taken up entirely by the wire, bridging over the injured parts which undergo a softening process while healing.

The advantages of this treatment are: First, the limb does not have to be immobilized; it is only necessary to apply a dressing, and, though I have done nothing more except keeping the patient in bed until the wound is healed, I find it more comfortable to suspend the limb as long as the patient is in bed, making his movements easier and more comfortable. At the end of two weeks the patient is allowed to walk around on crutches; this is continued as long as there is any soreness and the limb can be flexed to an angle of

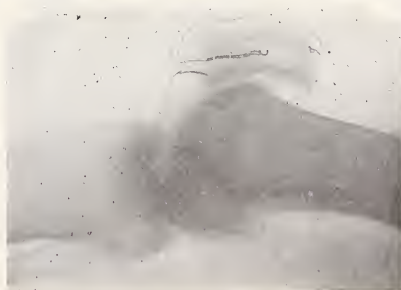


Fig. 4. Result fair—Silver wire, broke before union was firm.

110 degrees; this requires usually from four to six weeks. There is no doubt that the convalescent period is shortened at least half, the time depending upon the character of work to be done. In none of my cases have I used heat or massage, though of course this might help make the patient more comfortable. As the patella is free, with no pressure against the condyle, there is no danger of ankylosis, as was so common in the days when these fractures were treated by hyper-extension and figure eight bandages.

I know of only two cases in which there was not complete union of the fracture—one was a man who slipped two weeks after operation and a slight separation at the fracture line occurred, but this seemed in no way to impair the function of the knee. Another was reported as having fallen, causing the wire to tear through the ligament. In both instances, I am confident the wire was not passed deeply enough into the tendon and ligaments.

The reports from surgeons who have employed the method were so flattering, and my own experience so satisfactory, that I determined to bring the results before you tonight.

In the radiograms which I will now show you, note that in every case in which the

wire was used there is bony union, whereas in those treated by simple suture, there is fibrous union only and marked separation in some of the cases.

DISCUSSION.

Dr. Paul A. McIlhenny (New Orleans): Dr. Martin's demonstration is a very practical one in establishing the fact of holding the patella fragments in close apposition with what we may term a brace.

I wish to emphasize the particular point which he dwelt upon, namely, the close insertion or transfixation of the patella tendon and common tendon with the wire. Unless the wire comes practically in contact with the upper and lower parts of the patella you may have a releasing or slacking in the wire after you have apparently attached it to the bone with sufficient tensility to bring the fragments into apposition. Another point which I feel should be brought out is that, after the wound has been closed, the leg should be braced. We use a splint, preferably a posterior gutter splint with the knee in slight flexion. There are two reasons for such a position: First, should there be slight separation of the fragments, such as Dr. Martin has demonstrated in his plates, some flexion of the knee will produce a slight tension in the quadriceps and the fragments of the patella will then be forced to greater apposition. The second reason is that, after immobilization has been kept up for two or more weeks, there will be certain contractions about the knee joint which will inhibit active motion or the restoration of active motion. With slight flexion in the knee you may then slowly extend and slowly flex without having the difficulty of having contractions which naturally take place when the knee has been dressed in full extension. I believe I prefer the maintenance of the flexed position with a posterior plaster splint because with such a dressing you may apply slight pressure. I believe also, that, after the wound has healed, gentle massage is indicated, and also a certain amount of physiotherapy. As far as light treatment is concerned, I prefer the infra-red light.

Certainly, fixation of the patella fragments by an unabsorbable material which will maintain the fragments in complete apposition, with which there is no chance of separation of the fragments, will insure a greater number of satisfactory results rather than an absorbable material, which at best cannot be relied upon and which may be absorbed before union has taken place and later require more work to repair something that might have been prevented.

Dr. E. D. Fenner (New Orleans): It seems to me that what Dr. Martin has stressed in his paper is, that, if you clean out the fibrous tissue and see there is no overlapping periosteum between the ends of the bone, then suture the fibrous capsule

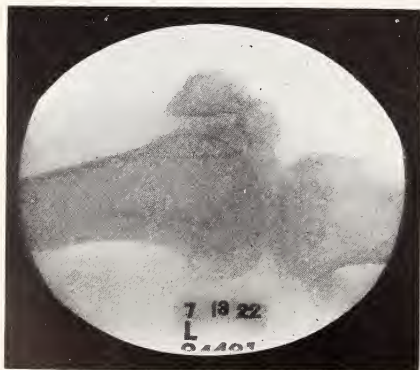


Fig. 5. Result taken six months after cat-gut suture—note separation.

and put the limb at rest for a sufficient length of time, you have a chance of getting bony union; but it is going to take six to eight weeks and during that time, you are relying simply upon absorbable material, there is a chance of the fragments being moved apart as a certain amount of relaxation is likely to occur.

If I understand Dr. Martin correctly, what he believes he has done by the introduction of the metal suture is that he introduces an interior splint which secures very firm apposition of the fragments; that it favors bony union; that it shortens the period during which it is necessary to keep the limb absolutely at rest, and makes his patient more comfortable and accomplishes a speedier return to work.

I confess I cannot contribute anything in the way of actual personal experience in the use of Dr. Martin's iron wire suture, but it appeals to me as being a common sense proposition.

I had the opportunity last week of seeing a patient, a negro man, whom I showed to every doctor I could come in contact with. The man came to my clinic because of chronic arthritis of the right knee and in examining him I discovered he had a fracture of the left patella. It had occurred thirty years ago and he had never been treated. There was a separation of about 3½ inches between the fragments. When the knee was flexed the condyles showed up through the skin.

He is an example of the capacity of the human being for adaptation. That man had been doing work of a day laborer for thirty years with that widely separated patella, and although he could not lift his knee and straighten his leg, it did not keep him from work a single day during that time.

Dr. J. A. Danna: I hesitate to get up and say a word of disagreement with my good friend Dr. Martin, but I am on record already and I do not want anybody to think I have changed my mind. Twenty-five years ago, I read a paper before this society describing five cases that had been treated by suturing of the capsule without any appliance to the patella itself, or any sort of supplementary splint such as Dr. Martin's. I have had a good many cases since, and I have used the same technique throughout and have yet to regret the fact. I must say, however, that I have been quite impressed with Dr. Martin's pictures of results. My own results, as far as I have been able to follow them, are just as good, but I do not believe that that kind of appliance in the average hands can get as good results as Dr. Martin gets. I dare say it is a good thing and probably no harm, but it appeals to me as being unnecessary, the use of metallic foreign body when you can get practically the same result by the use of absorbable material.

Dr. J. Birney Guthrie: At the request of Dr. Martin, I have brought here a patient whom he

operated on four years ago. The patient has been carrying this iron wire and it has given him no trouble during the four years. He stayed in bed about seven days and wore no splint. I can give you a practical demonstration of the function of a limb operated on by the open method.

I do not think anyone would want to wear a splint the length of time necessary if he could get by by other methods. The iron wire may some day give trouble, but has not done so up to the present moment.

Dr. E. Denegre Martin (closing): I thank Dr. Fenner for clearing up some of the points I failed to explain, and Dr. Guthrie for a practical and personal demonstration.

I described this method with the use of annealed iron wire some thirty years ago. If Dr. Danna will make a roentgenogram of some of his cases a year after operation he will find the fragments separated and held by fibrous bands allowing the ends of the patella to drop and interfering with its function,—this is usually the case where absorbable sutures are used.

Sixty cases have been reported to me in which wire splinting was used and all had perfect results. It is proof against refracture, shortens convalescence and assures a perfect result.

ALLERGIC DISEASES, WITH SPECIAL REFERENCE TO THOSE INVOLVING THE RESPIRATORY TRACT.*

JOHN P. HENRY, M. D.,

MEMPHIS, TENN.

Much controversy has prevailed lately concerning the terms allergy, anaphylaxis, idiosyncrasy, protein sensitization, hypersensitiveness and atopy. As pointed out in a previous article,¹ Kolmer² suggests that we adopt the term "allergy" and discard all others for the sake of simplicity and to avoid further confusion. We may do this for clinical purposes, yet appreciate the fact that, from a purely scientific viewpoint, there may be fundamental differences between anaphylaxis in the guinea-pig and an acquired sensitization or allergy in the human being. The following theory is very helpful in understanding allergy:

*Read before the Section on Eye, Ear, Nose and Throat at the Sixty-fourth Annual Session of the Mississippi State Medical Association, Jackson, May 12, 1931.

(a) Hay fever, asthma, certain dermatoses and certain affections of the mucous membranes of the gastro-intestinal tract are similar in nature, differing only in the kind and location of the cells involved.

(b) The symptoms are the result of an altered reactivity of these cells.

(c) This altered reactivity is due to a sensitization of these cells to substances which are harmless to normal individuals.

(d) This ability to become sensitive is, in most instances, an hereditary characteristic, though the actual sensitization is acquired.

The fact that some individuals exhibit symptoms upon the first ingestion of, or contact with, a particular substance need not confuse us if we accept the theory proposed by Ratner³ that sensitization may be acquired in utero, or the theory suggested by Shannon,⁴ that it may be acquired from minute amounts of protein obtained through breast milk.

CONDITIONS WHICH MAY BE ALLERGIC.

Hay fever and asthma are two of the outstanding allergic diseases. The symptoms of either, in typical attacks, are easily recognized. We deserve no credit, therefore, for a correct diagnosis in the majority of cases; it is essential, however, that we recognize the obscure and mild forms, as well as other types of allergy.

During the past ten years rapid progress has been made. The etiology, symptomatology and pathology of the allergic diseases are much better understood. Many conditions are now known to be allergic which formerly escaped detection. Some of these are presented in Table I. It is not contended by any means that allergy is always responsible for the conditions enumerated; we merely wish to emphasize the fact that allergy should be considered in the differential diagnosis, since it is more often responsible than is generally supposed. We may safely state that practically any portion of the body may be involved.

TABLE 1. CONDITIONS WHICH MAY BE ALLERGIC.

Group I. Head

1. Frequent "colds." Chronic "catarrh." Frequent sneezing attacks.
2. Non-suppurative or hyperplastic sinusitis. Allergic sinus disease with secondary infection.⁵
3. Headache, resembling migraine.⁶
4. Chronic or vernal conjunctivitis. Ulcers of lids or cornea.
5. Hay fever, perennial. Vasomotor rhinitis, with or without polypi and polypoid degeneration.
6. Hay fever, seasonal.
7. Itching of eyes, nose, palate or eustachian tubes.

Group II. Chest

1. Frequent chest "colds." Bronchitis with or without wheezing.
2. Cough, seasonal or chronic.
3. Croup. Edema of larynx and trachea.
4. Dyspnea, particularly that influenced by temperature changes.
5. Asthma.

Group III. Skin

1. Various dermatoses, particularly certain types of:
 - (a) Dermatitis, acute, chronic or seasonal.
 - (b) Eczema.⁷
 - (c) Erythema, urticaria, angioneurotic edema.
 - (d) Pruritis, with or without demonstrable lesions.⁸
 - (e) Purpura.^{9, 10, 11, 12}

Group IV. Gastro-Intestinal Tract

1. Swelling of lips or tongue, with or without itching.
2. Herpes labialis. "Canker sores" of mouth.¹³
3. Colic, infantile.¹⁴
4. Dyspepsia (loss of appetite, epigastric fullness, eructation, pain, cramping, nausea, vomiting, constipation, diarrhea with or without mucus or blood, pruritis ani).^{15, 16}

Group V. Joints

1. Pain, often sudden in onset and disappearance, with or without swelling, heat and redness, involving the soft parts without bony changes.

Group VI. Miscellaneous

1. Genito-urinary manifestations.¹⁷
2. Attacks of loss of consciousness, resembling epilepsy at times.^{18, 19}

HEREDITY.

When allergy is suspected, the influence of heredity should always be considered. Cooke²⁰ and others have stressed this fact. In a recent survey¹ of one hundred and twelve records of allergic children, below

the age of 17 years, we found that 91.06 per cent gave a history of some allergic condition among their antecedents (parents, uncles, aunts, grandparents or great grandparents).

Among a similar number of adults between the ages of 20 to 40 years, a positive family history was obtained in 70.5 per cent; between the ages of 40 to 60 years, 56.2 per cent gave positive histories. Without doubt the higher the incidence in the younger group was due to the fact that the family history was better known. The essential points to keep in mind concerning heredity may be summarized as follows:

1. Various types of allergy are interchangeable in the same or different generations. Specific hypersensitiveness is not inherited, but rather "the ability to become sensitive." A grandparent may have asthma, the parent urticaria, and the child abdominal allergy or migraine.

2. All members of one generation may escape but are capable of transmitting the tendency.

3. Symptoms appear earlier in a higher percentage of patients who give both a paternal and maternal family history of allergy.

4. When inheritance is unilateral, it comes from the father's side or mother's side in about equal proportion. Our statistics, in the series referred to, show 38.39 per cent paternal, 34.82 per cent maternal and 17.85 per cent bilateral.

5. A negative family history does not preclude the possibility of allergy.

6. The presence of some form of allergy among the antecedents is not essential for diagnosis, although it is distinctly helpful in doubtful cases.

7. The incidence of allergic conditions increases in proportion to the increase in population.

One of our patients is a member of the group shown in Chart I, taken from Smith's²¹ article, "Occurrence of Hypersensitiveness or Allergy in Five Generations of One Family."

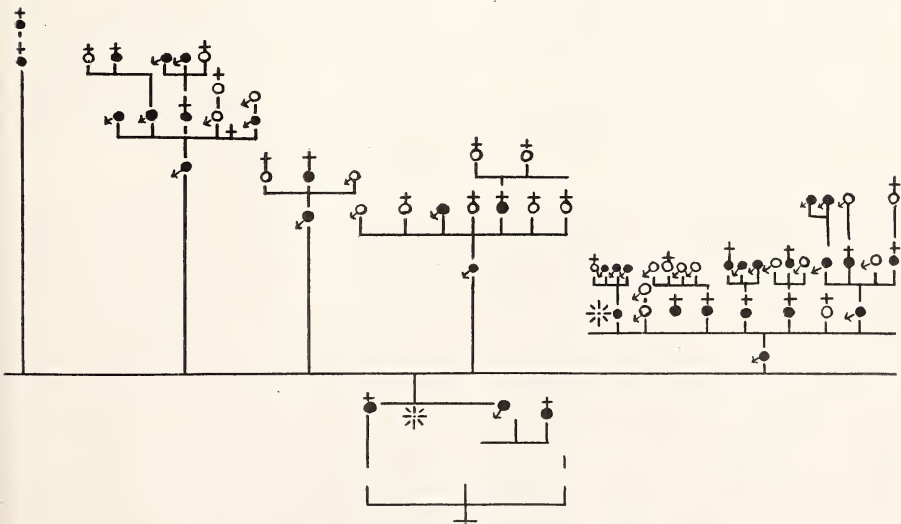


CHART I. Cases of allergy in five generations of the E family. The black circles represent the hypersensitive persons affected by asthma, hay fever, vasomotor rhinitis, urticaria, angioneurotic edema or eczema.

HISTORY TAKING.

In taking the history of a suspected allergic condition, careful inquiry should be made concerning certain details. Allergic symptoms, particularly those of the respiratory tract, are usually influenced by one or more of the following:

1. Temperature changes (humidity, heat, cold).
2. Diet (over-eating, food dislikes, qualitative food dyspepsia).
3. Exercise.
4. Dust (house, road, occupational, ashes).
5. Smoke (coal, tobacco).
6. Volatile oils and odors (paint, insect sprays, cooking).
7. Drugs and powders (aspirin, quinine, orris root, sulphur, pyrethrum).
8. Diurnal and nocturnal variations.
9. Seasonal variations.
10. Locality.
11. Animal emanations.
12. Pollens (trees, weeds, grasses, flowers).
13. Psychic and emotional disturbances (fear, anger, laughter, sexual).
14. Other diseases (allergic diseases are aggravated by certain infections and temporarily relieved by others).^{22, 23}
15. History of "failure to obtain relief from all previous forms of treatment."

PATHOLOGY.

The pathologic changes occurring in allergy depend upon the type of cell involved, the nature of the allergen and the type of reaction, whether acute or chronic. For example, acute conditions in the nose are usually accompanied by a thin, watery secretion containing mucus or, when secondary infection has occurred, by a mucopurulent secretion. Itching often accompanies the reaction to a pollen or animal emanation, whereas it may be absent when due to a food. Acute reactions usually show edema, eosinophilic infiltration and a rather characteristic pinkish gray membrane. Chronic irrita-

tion produces a pale gray membrane and is often associated with polypi or polypoid degeneration.

In the skin, acute lesions may consist of erythema only (rash) or of erythema and exudation of serum with edema (hive). Chronic conditions are more likely to resemble the picture described as eczema. Attacks of dermatitis, acute or chronic, which differs from both the above, are also frequently allergic.

Much the same pathology prevails in abdominal allergy. Laparotomies for acute conditions have revealed a local or generalized edema of the intestinal tract. Later, with a clue to the pathology, the true cause of the attack has been ascertained. Recently a surgeon related such an instance. A preoperative diagnosis of acute appendicitis was made. On opening the abdomen, he found a normal appendix. Practically all the small intestine was edematous and it was subsequently proved that the attack was due to the ingestion of honey. It can be truthfully said that allergy may simulate almost any form of abdominal pathology.

Time does not permit discussion of the various changes which occur in other portions of the body. It is interesting to speculate upon the pathology in certain types of headache resembling migraine, as well as other conditions which are at times unquestionably allergic.

THE ALLERGIC INDIVIDUAL.

Allergic individuals, in the absence of complicating diseases, present a rather characteristic makeup. The blood pressure is usually low: 110 to 115 systolic and 70 to 80 diastolic. The eosinophiles are often increased in the blood and tissues at the site of the reaction, particularly during the stage when symptoms are present. The vasomotor system is more or less unstable; frequently the vagal autonomic and sympathetic systems are unbalanced. Perhaps this explains the influence of emotional disturbances upon allergic diseases. Allergic persons, as a whole, are energetic and above the average in intelligence; they are

also of the excitable type. In this connection, it is interesting to note that allergy in pure negroes is infrequent. Balyeat²⁴ has stated that allergic patients withstand intercurrent diseases well, which may be related to the habit of more or less constant antibody formation. Among our patients, such diseases as nephritis, hyperthyroidism, and diabetes have been strikingly uncommon. Nor does asthma, in our experience, predispose to tuberculosis.

SINUSES AND ALLERGY.

A roentgen ray examination was recently made of a series of two hundred patients with various forms of allergic rhinitis or asthma, or both; of these, one hundred and fifty-seven (78.5 per cent) showed some degree of cloudiness in one or more sinuses. It is generally believed such findings are due to the fact that the cells in these membranes are sensitive, as are those in the nose or bronchial tubes. The characteristic edema, cellular infiltration and polypoid formations occur after contact with various allergens. Secondary infection may then take place, aggravating the allergic condition. Primarily, we believe that sinus changes are more often the result of allergy rather than the cause. Proetz²⁵ has shown that an apparently normal antrum membrane may increase a centimeter in thickness following inhalation of a specific allergen. We have other reasons for concluding that in the majority of cases sinus involvement is an end result in allergic individuals. One is the fact that many allergic patients are completely relieved without treatment of the sinuses after desensitization or avoidance of the allergens to which they are specifically sensitive. Follow up studies have shown that in some of these cases the sinuses clear up, whereas others continue to cast opaque shadows on transillumination or roentgen ray examination.

In stating that sinus changes are the result rather than the cause of allergic conditions, we would like to emphasize that we are speaking specifically of those changes which are characteristically pro-

duced by allergy. Sinus disease due primarily to infection in non-allergic persons is a different matter, as is secondary infection complicating allergic sinuses. Inability to demonstrate a sensitization by skin tests in the past no doubt accounts for the belief that nasal and sinus pathology is responsible for hay fever and asthma. Since skin testing has become better understood and materials and methods have been improved, one seldom fails to obtain positive reactions if testing has been thorough.

INFLUENCE OF TEMPERATURE CHANGES, INFECTION AND OTHER NON-SPECIFIC FACTORS.

This subject merits discussion on account of the well known influence of temperature changes on allergic diseases of the respiratory tract. In our opinion, this is best explained by the following theory: allergic membranes are sensitive membranes. When in contact with various allergens, whether from without (pollens, animal emanations) or within (foods), these membranes are congested, as mentioned under pathology. In this condition, cold air, changes in humidity, increase in body temperature, changing from an environment of one temperature to that of another, and various other changes to which the body may be subjected, cause further irritation and edema of these membranes. For example, in the presence of perennial hay fever, many patients suffer from blockage of the nose or sneezing attacks upon arising in the morning; this is caused by the change from the warm temperature of the bed to that of the room. Again, the changes in temperature after sundown offer the most logical explanation for the frequency and increased severity of asthma at night. Since temperature changes cannot be prevented, the only hope of overcoming this situation is appropriate treatment directed toward removing the cause of the original congestion, thereby allowing the membranes to return to a normal state.

Relief may be obtained on moving from one house to another in the same locality

by the elimination or avoidance of a particular allergen. Patients who obtain relief following removal to a more favorable climate do so by the elimination of an allergen to which they are specifically sensitive or they may continue to come in contact with allergens which produce only congestion; they remain free of symptoms, however, because of relief from unfavorable atmospheric changes.

In addition to the above, the majority of allergic individuals are affected by various other non-specific factors, particularly focal infection, infectious "colds" and other pathologic conditions which further irritate the membranes or lower body resistance. Frequent "colds" are often regarded as the primary cause of asthmatic attacks when, as a matter of fact, contact with specific allergens produces congestion of the membrane; this, in turn, renders these membranes susceptible to colds which are secondary and non-specific. To illustrate: the father of an asthmatic child stated, "This child never has asthma unless he takes a 'cold' but he takes a 'cold' every two weeks." After being tested and offending allergens removed from his environment, this child has had only one attack of asthma in two years, which was due to circumstances that might have been avoided.

It is true that removal of diseased tonsils and other foci of infection will occasionally relieve an allergic condition. Every patient has a certain tolerance or threshold and usually only mild cases are relieved by such procedures alone. The allergic state has not been removed and frequently these patients exhibit symptoms later.

SKIN TESTS.

We continue to hear diverse opinions regarding the value of skin tests. At one extreme are those who, lacking experience, expect too much; when good results are not promptly forthcoming, they condemn the entire procedure as worthless. At the other extreme are those who, being over-

enthusiastic, form a hasty opinion based on skin reactions alone, and make no attempt to correlate the findings with the history. This situation is regrettable. Skin tests occupy a very definite place in medicine and should be properly evaluated. Progress is being made in this, as in other fields, but we realize that much is yet to be learned.

During the past three years we have examined one thousand patients with various allergic manifestations, and in the course of our investigations have applied approximately two hundred ten thousand skin tests, or an average of two hundred ten tests per patient. As a rule, five hundred tests are made for asthma or perennial hay fever, whereas for seasonal hay fever only about half that number are necessary. If migraine, urticaria, eczema, or abdominal symptoms are present, the number of tests required depends upon the age, diet, and history of the patient.

The application of skin tests is a fairly simple laboratory procedure. The selection and preparation of proper testing materials, the various methods of testing, and the interpretation of reactions, however, involve a number of problems worthy of discussion.

METHODS OF APPLYING SKIN TESTS.

The relative value of the scratch and intradermal tests is still a matter of controversy. The scratch tests are easier to perform. As a rule, pollens applied by this method give good reactions in seasonal hay fever sufferers. In other conditions, particularly asthma, scratch tests are frequently negative and therefore are not dependable; intradermal tests with the same products may give strongly positive reactions. However, in view of the fact that intradermal tests are not without danger unless preceded by negative or doubtful scratch tests, it appears inadvisable to employ either the one or the other alone. Nor should intradermal tests be made with certain highly toxic substances, as flaxseed, glue, castor bean dust, and a few others. Fatalities have been reported

following failure to observe these precautions.

In certain conditions, as eczema, the method of choice, particularly for external irritants, is the application of the so-called "patch" or "contact" test for a period of twenty-four hours.

Tests by passive transfer are sometimes advisable in very young children, in the aged, in bedridden patients, in those with extensive skin affections, or in cases where other methods are contraindicated.

GRADING OF TESTS.

The grading of tests is largely a matter of personal opinion. Any test which shows more than a negative reaction may be considered positive. As a rule, erythema alone is graded one plus; erythema with slight wheal formation, two plus; and erythema with pronounced wheal formation, three or four plus, according to the amount of reaction and the presence of itching or pseudopodia. This method of grading, although satisfactory for individual work, does not conform to any standard. For the benefit of those patients who are referred from one physician to another, it would be well if some system of measuring erythema and wheal formation in millimeters and centimeters were universally adopted. In this way, the reaction might be visualized.

However, since the capacity to react is not equal in all skin cells, and since the same products cause dissimilar reactions in different areas of the body, no standard can be applicable in every case. Further, some products which give small reactions may be more important etiologic factors than others which cause larger reactions. It is well, therefore, to record any reaction varying from the normal; its role as a possible factor may then be proved by further developments.

INTERPRETATION OF TESTS.

Our most difficult problem is the interpretation of tests. We must first consider that positive skin reactions may represent future, present or past history; a positive

reaction merely offers a clue for further investigation. To illustrate: seasonal hay fever sufferers may show positive reactions to pollens which are in no way related to the symptoms. The reactions, therefore, must be correlated with the history. For this purpose, an accurate knowledge of the pollinating season of all potential hay fever plants which may have produced reactions is essential.

Positive reactions to pollens without the appearance of symptoms need not confuse us. These reactions indicate an inherited ability of the patient to become sensitized to these pollens, and symptoms may develop only after long continued exposure. Fall hay fever sufferers who strongly react to trees or grasses or both, yet have no symptoms in the spring, are likely to develop symptoms later at this season of the year.

Several years ago we tested a small boy whose chief complaint was "sinus trouble," frequent "colds," and a daily rise of temperature. The presence of allergy on the paternal side of the family was revealed. Taking this into consideration, as well as the fact that various forms of treatment, including intranasal windows, had been of no avail, allergy was strongly suspected. Complete tests with one hundred and fifty foods, ninety pollens, fifty animal epithelials and miscellaneous products caused reactions from several in each group. Following treatment, all symptoms of which he complained disappeared. One year later the patient had a severe attack of asthma upon exposure to pyrethrum. This substance had produced a positive reaction in our tests, demonstrating, we believe, that we were dealing with a potential asthmatic from the beginning.

Positive reactions, particularly to foods, may represent an allergic condition which has existed in the past, although desensitization to these products may have taken place. Children and young adults who have had eczema, urticaria, or colitis in earlier life may strongly react to as many as thirty or forty foods, yet may be able

to ingest with impunity several or all of these foods at the time of examination.

We recently examined a physician whose chief complaint was dyspnea. Members of his family had asthma, and he hoped his own trouble was asthmatic, rather than cardiac, in origin. At his request, various tests were made. Only foods gave positive reactions, and these seemed unrelated to the dyspnea. On closer questioning, it was found that he had had severe urticaria ten years earlier. Although some of these foods had doubtless been responsible for the urticaria, desensitization had apparently taken place.

It is well known that persons are sensitive in varying degrees to different substances. One may be so mildly sensitive to feathers, for example, that contact will merely produce congestion or evidence of a cold.

Another fact to be remembered is that symptoms may appear only after continual contact for a period of several days and may persist for several days after contact has been broken. The following case report is an illustration:

Mrs. B. M. was tested in October, 1929, on account of hay fever and asthma. She reacted very strongly to feathers, but only mildly to Kapok. On removal of feathers and other offending substances from her environment, the symptoms disappeared. Later, she was advised to try a Kapok pillow; after sleeping on such a pillow for three nights, hay fever and asthma returned. Although the pillow was then removed, symptoms continued for ten days. Following this, she was free of symptoms until the Kapok pillow was resumed. Symptoms appeared again on the fifth night and became progressively worse each night until the pillow was finally discarded.

A similar case is that of Miss M. W., who has urticaria after ingestion of Irish potato. If it is taken in moderate quantity only once or twice each week, no symptoms develop, but if taken on several consecutive days, urticaria follows.

Obviously, the interpretation and evaluation of tests is a complicated study. Unless the information obtained is used discriminately and intelligently, needless restrictions will be imposed upon the patients. It is inexcusable to tell patients that, on

account of their positive reactions, certain foods must never be taken. We are justified only in explaining the possibilities and endeavoring to secure the cooperation of patients in discontinuing entirely all positive foods for a trial period so their effect upon the symptoms may be carefully noted. Patients should be cautioned against merely "cutting down" the quantity or taking combinations containing traces of forbidden foods.

The plan of discarding one food at a time is not likely to meet with success. Should two or more be factors and only one be discontinued, the others may cause symptoms to persist.

If symptoms are relieved, one food should be added to the diet at intervals. In this way, the food or foods responsible for symptoms may be detected and, if necessary, permanently discontinued. All foods should first be resumed in small amounts; if no harmful effects are observed, the amounts may be gradually increased. One may determine whether elimination should be permanent or whether desensitization may be accomplished by a period of total abstinence, followed by resumption in gradually increased quantities. Those foods which have no ill effect on being added to the diet may be permanently resumed.

Thus far, we have discussed only positive reactions, but we must not overlook the fact that negative reactions may be obtained to substances which are clinically positive. Fortunately, the improved methods of testing result in fewer negative reactions; however, when they do occur and foods are suspected, one must depend upon elimination diets.

If negative reactions are obtained in a seasonal hay fever sufferer, the history of place, time of onset, and duration of symptoms is most important. Pollens are not always responsible for seasonal hay fever; it may be caused by a food in season or by contact with animal hairs or other substances.

When dealing with asthma in the absence of positive tests, a complete record

is essential. This should include a history of the attack in its relation to foods, contact with animals, season of the year, diurnal and nocturnal variations, and environment, as well as other aspects of the case as a whole. One having experience with many asthmatics may often eliminate causative agents which escape the notice of one unaware of the importance of learning every fact which may have a bearing on the case.

It must also be remembered that valuable information obtained from skin tests may be completely set at naught if one fails to consider certain non-specific factors, as variations in temperature, humidity, fatigue, dietary indiscretions, undue exercise, and dusts of cotton gins, corn cribs, ashes, and coal smoke, as well as other dusts and certain penetrating odors, which may irritate congested mucous membranes and aggravate the allergic condition. Obviously, any pathologic condition should also be taken into consideration.

If medicinal agents are suspected, one must rely almost entirely on the history for diagnosis. Scratch tests with certain drugs, as aspirin and quinine, seldom, if ever, produce reactions, yet violent symptoms may follow the ingestion of minute quantities of these drugs. Other drugs, as morphine, frequently produce non-specific reactions.

The interpretation of skin reactions becomes less difficult as one's experience increases. A problem which seems to confuse many observers is the response of certain allergic persons to practically all tests. In some instances, these patients have been designated "freaks" and no treatment has been attempted. If a large number of substances react, those which are etiologic factors may be determined if observation is carried out as follows: first, those products which react at once should be noted. Later, wheals may appear in practically all test sites; these are unimportant and should be disregarded. After several hours it will be found that the non-specific reactions

have faded, whereas those of clinical consequence will show erythema, edema and heat.

Twenty-four hour observation of tests is also important; certain substances may not show positive reactions until the expiration of that time. Important information is sometimes overlooked if this procedure is not carried out.

Skin tests are indispensable as diagnostic agents. In order to realize their full value, however, experience and continuous study of the various methods of testing, preparation of materials, and evaluation of reactions is essential. Furthermore, tests must be carried out with thoroughness in every case; the practice of selecting at random a few materials and applying them by the scratch method alone is to be avoided. Without a comprehensive knowledge of the possibilities and limitations involved, failure and disappointment are inevitable.

TREATMENT.

The purpose of this paper is to discuss allergy in general; for this reason no attempt to describe treatment in detail will be made. It is obvious, from all that has been said, that the prime object of specific therapy is first to determine, by skin tests or history, those allergens responsible for symptoms. After this, it is essential that the patient avoid, or eliminate from his environment, all products which can be dealt with in this manner. He must be desensitized to products, such as wind-borne pollens, which are unavoidable. For example, an asthmatic who has symptoms each year from February until June may show positive reactions to the pollens of several trees, spring grasses, feathers, house dust, a few foods and miscellaneous substances. On account of the seasonal occurrence of symptoms, it is obvious that pollens are primary factors. The history indicates that other products are incapable of initiating attacks but, after symptoms have been established, they can definitely aggravate the condition. As described in a previous article,²⁶ incomplete testing with

failure to take into consideration these secondary factors is often responsible for poor results.

In addition to specific therapy, ephedrin and adrenalin probably occupy first place in the prevention or relief of attacks. Other remedies, too numerous to mention, are of value in selected cases.

In regard to the surgical treatment of the nose and sinuses, Hansel²⁷ in a recent report has discussed this problem at length and has given a comprehensive review of the literature on the subject. He quotes Rackemann and Tobey²⁸ who observed 1,074 patients with bronchial asthma. They attempted to determine the part played by focal infections and other disturbances in the nose and throat and stated that drainage of infected sinuses or the removal of polypi brought temporary relief and general improvement to a large number of patients. In only 5 per cent of the patients operated upon was asthma permanently eliminated. Hansel concludes, in part, as follows:

"The part played by bacteria as etiologic factors in nasal allergy has not been proved, and the general consensus of opinion is that bacteria are secondary invaders.

"Nonsuppurative or hyperplastic sinusitis should be considered as allergic sinus disease until proved otherwise.

"Allergic sinus disease with or without secondary infection should be differentiated from primary sinus infection with edema, hyperplasia or polypi.

"Allergic nasal and sinus disease should be treated conservatively and in conjunction with the treatment for the allergy.

"Surgical intervention is frequently indicated to restore function and eliminate infection."

The experiences of Rackemann and Tobey, like Hansel's have been identical to ours.

REFERENCES.

1. Henry, John P.: Skin lesions encountered among allergic individuals. (Read before Section of Dermatology, South. Med. Assoc., Nov., 1930—to be published).
2. Kolmer, John A.: A critical review of the mechanism and terminology of allergy, *Jour. Lab. and Clin. Med.*, 13:905-912, 1928.
3. Ratner, Bret: A possible causal factor of food allergy in certain infants. *Am. Jour. Dis. Child.*, 36:277-288, 1928.
4. Shannon, W. Ray: Demonstration of food proteins in human breast milk by anaphylactic experiments in guinea pigs. *Am. Jour. Dis. Child.*, 22:223-231, 1921.
5. Hansel, F. K.: Clinical and histopathologic studies of the nose and sinuses in allergy. *Jour. Allergy*, Vol. 1, No. 1, November, 1929.
6. Balyeat, Ray M.: Allergic migraine. *Am. Jour. Med. Sci.*, 180:212, 1930.
7. Vaughan, Warren T.: Allergic eczema. *Jour. Lab. & Clin. Med.*, 13, 1927.
8. Rowe, Albert H.: Allergy in the etiology of disease. *Jour. Lab. & Clin. Med.*, 13, 1927.
9. Barthelme, F. L.: Allergic purpura, *Jour. Allergy*, 1, 1930.
10. Alexander, H. L., and Eyermann, C. H.: Food allergy in Henoch's purpura. *Arch. Dermat. and Syph.*, 16:322, 1927.
11. Alexander, H. L., and Eyermann, C. H.: Allergic purpura. *J. A. M. A.* 92:2092, 1929.
12. Osler, William: *Brit. M. J.* 1:517, 1914.
13. Rowe, Albert H.: Gastro-intestinal food allergy, a study on one hundred cases, *J. Allergy*, 1:172, 1930.
14. Stafford, Henry E., Watson, Richard G., and Jacobus, Lawrence R.: Abdominal allergy in infancy. *Calif. and Western Med.*, 34, 1931.
15. Rowe, Albert H.: Gastro-intestinal food allergy, a study on one hundred cases, *J. Allergy*, 1:172, 1930.
16. Duke, W. W.: Allergy as a cause of gastro-intestinal disorder. *Southern Med. Jour.*, 24, 1931.
17. Duke, W. W.: Asthma, hay fever, urticaria and allied manifestations of allergy. *C. V. Mosby & Co., St. Louis*, page 180.
18. Rowe, Albert H.: Allergy in the etiology of disease. *Jour. Lab. & Clin. Med.*, 13, 1927.
19. Spangler Ralph H.: Allergy and epilepsy. Analysis of one hundred cases. *Jour. Lab. & Clin. Med.*, 13, 1927.
20. Cooke, R. R., and Spain, W. C.: Studies in specific hypersensitiveness: The familial occurrence of hay fever and bronchial asthma, *J. Immunol.* 9:521, 1924.
21. Smith, Abigail Eliot: Occurrence of hypersensitiveness or allergy in five generations of one family. *Arch. Int. Med.*, 41:472-481, 1928.
22. Pottenger, F. M.: Similarities and differences in bacterial and nonbacterial allergy. *Jour. Allergy*, 1, 1930.
23. Berg, Samuel: Relief of bronchial asthma following lobar pneumonia. *Jour. of Allergy*, 2, 1930.
24. Balyeat, Ray M.: The hereditary factor in allergic diseases, with special reference to the general health and mental activity of allergic patients. *Amer. Jour. Med. Sci.*, 3:176-332, 1928.
25. Proetz, Arthur W.: Sudden allergic reactions in the maxillary sinus. *Jour. Allergy*, 1, 1930.
26. Henry, John P.: Some causes of failure in the

treatment of seasonal hay fever. *Memphis Med. Jour.*, October, 1929.

27. Hansel, F. K.: Clinical and histopathologic studies of the nose and sinuses in allergy. *Jour. Allergy*, 1, 1929.

28. Rackemann, F. M., and Tobey, H. G.: Studies in asthma. The nose and throat is asthma. *Arch. Otolaryng.* 9:612-621, 1929.

DISCUSSION.

Dr. B. S. Guyton (Oxford): It so happens I have had asthma all my life and I am naturally interested in this subject. I have been a great deal better the last few years, but since I am doing eye, ear, nose and throat work, I have been more interested in this subject from the stand point of a rhinologist. Doctor Henry kindly sent me a copy of his paper many days ago. As a rhinologist I am most interested in the nasal conditions and operative conditions.

It is my impression the majority of allergic patient seeks relief from the rhinologist before reaching the allergist. With this in mind, more than a year ago, I addressed to each member of the American Association for the Study of Allergy a questionnaire containing these three questions:

Approximately what per cent of your new patients have had operations on the nose?

What percentage of these were improved by the operation?

Have you seen any cases where they were made worse by nasal operations?

The responses were splendid. I received 65 replies. A few were so indefinite I could not use their material. Fifty-two expressed rather definite opinions without, however, giving exact data. From these 52 replies I have made, in substance, a summary based on the average of figures mentioned in their letters.

Replies to the first question ranged from two to practically 100 per cent, with more than 40 per cent as the average. More than 40 per cent of the cases going to these allergists had had operations on the nose.

Regarding the question how many had been improved the answers ranged from none to 33 per cent. Part of those answering there was an improvement stated it was only temporary. Thirty-three answered they have seen cases made worse, that is 33 out of 52. Several mentioned cases who had formerly only hay fever and became asthmatic after operation. One reported a physician having asthma following a nose operation. Another mentioned asthma in four cases following tonsil operations. Several of the answers said, in substance, most of their referred cases came from rhinologists and naturally they saw only the failures and the cast-offs of the rhinologist.

The reaction from operations on the nose in allergic cases are very grave. The swelling lasts a long time, and all too often, in the end, the

conditions are no better and perhaps worse than in the beginning.

Only marked conditions can justify an operation and even then only the most conservative work should be done.

Dr. J. C. Pegues (Greenville): After hearing such a masterful discussion of allergy, one is tempted to ask if all inflammatory diseases are not more or less allergic. Like Dr. Henry, I think it our business, however, to be a little bit conservative.

In studying the case records of our allergic department, we find our asthma advancing. Two years ago when we first became especially interested in hay fever and sinus we were so sure many of our sinus cases were allergic we rushed into allergical treatment first shot on any sinus case, and the patient would return with the same old infected sinus. Now, I don't mean by that we don't have sinus caused from allergy. We feel sure that some of our typical sinus cases were allergic. We attempted to cure our asthma allergically. We tested and retested and some cases responded beautifully and some cases would not respond. Our percentage of relief was about the same as usual.

Now, the question which we put to ourselves is, why do not all asthma cases respond to treatment if they are all allergic? One of two or three things might occur. In testing out an allergic case sometimes we get a patient that has had some adrenalin or ephedrin, may be the night before or maybe that morning and in that case they are not likely to show up all the tests, and it is a good idea to have them stay two or three days so you can watch them and keep out these asthmatic cures and hay fever cures so you can test them allergically.

Another question that occurred to us was, were asthmatic cases typically allergic, and, of course, we haven't answered that absolutely satisfactorily to ourselves, but we did connect a little closer on that. We believe in asthma and hay fever cases, as in any chronic disease, you have got to eliminate all foci of infection and any disease anywhere you find it. If there are infected teeth, that is sapping the vitality of the patient, if there is an infected tooth or an infected sinus that is not draining properly, the conditions will not clear up properly under your allergic treatment. If you have an old, infected antrum that is not draining properly you are going to have an old chronic asthmatic case right along.

In looking over our records we find about half of our asthma patients came in with sinus trouble and we got the best results in those cases that had maxillary sinusitis.

Dr. Edley H. Jones (Vicksburg): This subject of allergy is quite important and in all probability

will be still more important in the future, and perhaps the immediate future, to the medical profession.

Doctor Henry, in his paper, in a few condensed pages, has given an outline of the disease, methods of diagnosis, and of treatment that will certainly be worth every one's careful study.

I said this is going to be a most important study. That is for two reasons. It opens some means of relief to a great many patients who have heretofore had very little relief. In the past we have been able to diagnose hay fever and asthma and to do a little for them, but the most we have been able to do for them is to sympathize. By this allergic treatment a large per cent of these patients can get relief. Don't expect 100 per cent relief. The pendulum swings to and fro. We can catch one extreme or the other. Don't consider every case that comes in as an allergic case, or you will be doomed to disappointment.

The second reason this is going to be important is that it is estimated that some seven per cent of our population is affected with some form of allergy, and this number had been increasing. Therefore, it is quite reasonable to think that this number will increase as time goes on.

There is one other thing that I would like to call attention to in connection with the treatment and that is that acid is beneficial in many of these cases.

Dr. N. C. Womack: (Jackson). This subject so admirably covered by Dr. Henry is a big subject and is getting bigger all the time. It concerns pediatricians as much as any one thing we have to deal with. When we have three months colic, or six months colic, or nine months colic, it is probably allergic. In eczema and asthma it is our most difficult problem. We are learning more all the time of allergy. We have not yet, and the doctors will agree with us I know, gotten to a definite basis. It is a matter that requires a good deal of understanding of all the conditions underlying. For instance, a child will be allergic to milk at one time and at another time will not be. The doctrine, first, of focal infection is waived. Bacteria, you must remember, will produce allergy just as will protein. I have seen children that would swell up with edema on milk when they were raised on milk. I know of no way except to go back to the diet of that animal which produced the milk. In eating it may have gotten hold of some particular thing the child happens to be sensitive to.

This is a paper we will all do well to take and read and ponder and remember in dealing with this condition in our private practice. We will make the diagnosis; we will eliminate those things the child is sensitive to, get rid of all focal infection, and get rid of the things that deplete

the system and finally it is a matter that will have to be referred to the man who does that particular kind of work.

Dr. I. W. Barrett, (Memphis, Tenn.): There is just one thing I would like to call attention to, regardless of what specialty you are interested in. There are certain drugs that allergic individuals tolerate badly, narcotics, especially the opium derivatives, and that should be considered every time if you have a history of allergy in the treatment of any condition.

Dr. G. E. Adkins, (Jackson): Allergy is apparently a vaso-motor dilatation. It may take place in the skin, it may take place in the mucous membranes, or even in the interior of the body, and that has to be brought about by some chemical substance that produces this vaso-motor dilatation. It can be offset by adrenalin or ephedrin temporarily and then we have our vaso-motor dilatation again. Certainly, then, it must be a chemical reaction in the body that may be limited to certain cells of the body; it also may be common to the fluids of the body. It is one disease we do not have until an antibody has gotten into the human body. It reverses all types of immunity. Some man has well said that the trays must be taken up and stood on end and heated before allergy is to be understood. It is not inherent. The tendency is inherent but human beings do not inherit an antibody. They have to acquire that. The tendency can be inherited, and as long as it is inherited more frequently from the paternal side, and families are raised more frequently in the paternal location than in the maternal location, I am wondering again if it is not like tuberculosis and acquired from the same surroundings. It must be gotten into the circulation and I think it has been designated as an allergen, and they can find it in the tissues nowhere, but when it comes in contact with the agent that has been designated as allergen it produces this vaso-motor dilatation.

As to the operative conditions; allergy is no contra-indication to an operation; rather is it an indication. If an allergic patient has an infection or some condition that must be removed by an operation, it is no contra-indication to it. It is an indication for due precaution. But to operate on an allergic sinus will only result in a more pronounced reaction; it will bring you more of a vaso-motor dilatation there.

I find in my younger cases that roentgen ray and my trans-illuminator will not always give me a clear picture of the sinus, but if that patient has gone on and passed half of his life, these sinuses will show up very clearly, leading me to believe in after life there comes an atrophy rather than a dilatation.

Dr. Henry (closing): I want to thank the gentlemen who have discussed this paper. The subject of allergy is so large that it is impossible to discuss many of the phases which I would like to have mentioned. In this presentation I have endeavored to bring out the following points:

1. The theory of allergy.
2. The many conditions which may be allergic.
3. The importance of heredity.
4. The importance of a careful history.
5. Pathology of allergy.
6. The characteristics of the allergic individual.
7. The fact that sinus involvement is due to a sensitization of the sinus mucous membranes and therefore not the cause of nasal or bronchial allergy.
8. The part played by temperature changes, infections, climate, change of location, and other non-specific factors.
9. The importance of both the scratch and intradermal tests together with the grading and interpretation of the reactions.
10. The prime object of specific treatment.

Dr. Guyton, a victim of asthma, has summed up very well, I think, what our attitude should be toward surgery. If one continues to regard edema of the sinus mucous membranes which has been produced by a specific sensitization, with or without infection, as the cause of asthma, and attempts to cure asthma by surgery alone, failure to relieve will result in 95 per cent of the cases.

Dr. Atkins said that allergic pathology can be offset by adrenalin or ephedrine temporarily. This is quite true but the purpose of this paper is an attempt to show that the reason for thorough allergic investigation and treatment is to ascertain and remove offending allergens in order that permanent relief may be obtained in a high percentage of cases without having to resort to the constant use of such drugs.

PAINFUL FEET.*

EARL HYMAN, M. D.,†

NEW ORLEANS.

One of the most annoying, and frequently disabling, conditions to which mankind is heir is foot pain. An idea of the relative frequency of the condition can easily be had if one only notes the great number of advertisement of various patent appliances, special shoes, arch plates, and the like, each

calculated to cure some particular type of foot ailment.

If one steps into a shoe store and complains of the feet he is immediately offered the type of foot apparatus that this store happens to be agent for, and knowing no better the advice is accepted.

Needless to say, an incalculable amount of damage is thus done; proper treatment being postponed, sometimes, until advanced structural changes have taken place.

Doctors themselves are very prone to treat foot complaints too lightly, and will frequently refer a patient with painful feet to a shoe store, or possibly a brace shop, instead of attempting to diagnose the trouble themselves, or sending the patient to someone they know to be competent. When one considers the vast army of people suffering with foot ailments, to whom the feet are most essential in pursuing their daily occupations, this can readily be seen to be a serious matter.

In order to better appreciate the prevention and proper treatment of painful feet, we will briefly review the anatomy and physiology of the foot. The body weight is borne by the astragalus, which articulates above with the tibia and below with os calcis. The chief movements are plantar and dorsiflexion, eversion and inversion and these must be free to have proper function. The foot is composed of an inner longitudinal arch, formed by the os calcis, astragalus, scaphoid, cuneiforms and three inner metatarsals. The purpose of this arch is to give spring and elasticity to the gait, and act as a shock absorber. At the front end of the foot is the transverse arch, formed by the metatarsal heads. The outer border of the foot is formed by the os calcis, cuboid and fifth metatarsal. This is almost in contact with the ground, and represents the strong side of the foot where most of the body weight should be borne.

The foot has two functions: first, to act as a passive support or pedestal, and, second, as an organ of locomotion.

*Read before the Orleans Parish Medical Society, May 25, 1931.

†From the Department of Orthopedics, Post-Graduate School of Medicine, Tulane University, and the Department of Orthopedics, Touro Infirmary.

When standing, the astragalus is rotated inward and downward, and takes along with it the bones with which it articulates, so that, in standing, the leg is rotated inward in its relation to the foot; the bones interlock, until checked by the ligaments, and very little muscular effort is necessary. This is known as the passive attitude or position of weakness.

The second function of the foot is to act as a lever to raise and propel the body; the calf muscles furnishing the power and the metatarsal heads acting as the fulcrum. For this combination to be used normally and efficiently, it must be held in such relation to the leg that the line of weight passing downward through the center of the knee and ankle joint, is continued approximately over the second toe or center of the foot.

For this reason it is so important when walking that the feet be held parallel and not turned outward, as in standing, as the latter position would throw the line of weight to the inside of the foot, or over the arch, putting a strain on the ligaments, and there would be no lever and fulcrum action. This mode of walking, combined with weakened muscular support, results in laxness and strain of ligaments holding the arch together, with breaking down of the arch, abduction of the foot, pain and disability.

Therefore, any treatment not based on this mechanical fact, is sure to fail.

The feet should be held parallel. As the leg is extended, the foot should be at a right angle, the back of the heel touching the ground first, then the weight falling onto the heel, the outside of the foot and finally the ball of the foot or anterior arch, the final impulse of propulsion being given by the metatarsal head of the great toe.

Chief among all causes of foot pain is probably improper shoes. These, by crowding the toes, due to being too narrow, too short, too long or of improper contour, can by direct pressure cause corns and bunions and indirectly, due to pain or lack of space,

prevent the proper use of the foot as a fulcrum.

Other important causes may be a recent illness, a toxic state, overweight or overwork, which by weakening the muscular support, contribute toward weak feet.

Also conditions such as arthritis, or osteomyelitis, tuberculosis, syphilis or pyogenic infection; or muscular weakness and paralysis following poliomyelitis and cerebro-spinal conditions; or injuries, such as sprains or fractures.

The early symptoms of foot trouble are a sensation of weakness, 'tired feet,' usually followed by a feeling of discomfort or slight pain about the inner side of the foot and ankle. A dull ache in the calf, especially when there is a short heel cord, burning sensation, numbness, and free perspiration.

As the condition progresses the foot becomes very tender, markedly swollen and patient is barely able to walk, and then, not without the greatest pain and effort.

The prevention should begin with the child who should be watched carefully from birth for signs of foot deformity or weakness, and more particularly when he begins to walk. Any general condition such as rickets, or any deformity of other parts, such as knock-knees or bowlegs, that can have some bearing should be corrected. The child should be taught to walk properly, and shoes should be worn with a straight inner last, and sufficiently wide that the toes will have room for expansion on weight bearing. If foot is weak, as evidenced by a pronation of the foot, and marked prominence over inner aspect of ankle, it can easily be corrected at this stage by a corset, or other substantial shoe, raised on the inside edge from $\frac{1}{8}$ to $\frac{1}{4}$ inch. In addition to this, proper method of walking is taught and physio-therapy given. It is particularly important that children's feet be carefully watched, as they seldom complain of pain, and as Whitman so aptly puts it: "Foot troubles are more often ingrown than outgrown."

From the standpoint of prevention, what applies to the child, will largely apply to the adult. If the proper fitting shoes are worn, the feet used correctly, and attention given to the first symptoms of strain, there will seldom develop trouble of a serious nature.

Treatment should be begun by taking a careful history, which should include family and past history, any recent illness or injury, onset, duration and exact location of complaint; occupation, the amount of work feet must do, and what type of treatment has been attempted. Most of these patients come with some type of patent arch plate that has proved unsatisfactory, or at best, given only partial relief. An inspection of the general physical condition is then made to see if there is any disproportion of weight, diseased or toxic state, foci of infection, as teeth, tonsils, pelvic condition, etc. and the patient directed toward the proper channels for elimination of these contributory causes.

The feet are then examined to determine the amount of passive motion, general contour, location of callouses or any deformity. The patient is then made to stand holding both feet parallel, and about 2 to 3 inches apart to determine the amount of internal rotation of the astragalus, condition of the arch, the amount of pronation of the foot and whether the line of weight bearing falls in the proper place. An examination of shoe will yield direct information, by noting shape and area of greatest wear.

Here allow me to correct a popular erroneous impression. A foot does not necessarily have to be flat to be showing signs of strain, nor does a flat foot necessarily give trouble. We see many feet with intact or even high arches, that are painful and beginning to weaken. On the other hand, there are many flat feet, particularly where the condition is racial, as in the negro, where even in the face of excessive use, have never given trouble. Of course, the springlike qualities are absent and the difference here is somewhat the same as that between a hard rubber and a pneu-

matic tire. Both, however, can be efficient for weight bearing.

The first indication for the treatment of the local condition, is rest of the tired and strained ligaments and muscles. This is done by strapping with adhesive plaster, holding foot in position of inversion, which invariably gives prompt relief in feet that are not too far advanced. Occasionally, it is necessary to fit a felt pad under the longitudinal arch and hold it in place by strapping after the method of Jones. Strapping is applied 2 or 3 times, at weekly intervals until foot has sufficiently recovered for further treatment. The severity of the case will then determine what future course to pursue. In the average case, in the male, who can very easily be persuaded to wear proper shoes, a Thomas heel with $\frac{1}{4}$ inch raise on inside edge; instructions as to proper walking with contrast baths to stimulate the circulation and increase muscle tone, will usually suffice.

It is more difficult to persuade the female to wear a sensible shoe, but they will usually consent to wear a good fitting oxford at least for everyday wear. This does not necessarily imply a low heel as many patients are distinctly more comfortable in a 2 or 3 inch heel. The shoe is corrected in the same way and the same general plan of treatment instituted. In more elderly patients with weak support a high lace shoe is often indicated.

In the more severe cases, where there has been considerable structural change, with complete relaxation of arch, marked bulging on inside of foot and pronation, it is necessary to provide a temporary support. This is done by making to order a thin, steel tempered plate of 22 gauge from a plaster model of the patient's foot, taken in the corrected position. This acts as a spring like support, favors proper walking and approximates more closely, the natural arch, than anything mechanical that we have. It is attached to a leather inner sole and may have, when necessary a flange on inside to hold up and out the astragalo-scapoid joint. The height of the plate can be raised

or lowered to meet requirements. This differs from the store plates in that they are not rigid and do not limit the natural movements of the bones of the foot. Besides they are made to fit one particular foot and no other; therefore, will always retain their proper position inside the shoe.

Usually these patients also have some pain over the forefoot, and examination will reveal a marked spreading of the metatarsal heads, as a rule, with callous formation on the plantar surface. Many of these patients have visited the chiropodist for months to have the callous removed, thinking that they were thus removing the source of their pain. When a pad is placed behind the metatarsal heads and held in position, the patient is marvellously relieved and the callous soon disappears. When it has been necessary to make a plate this raise can be incorporated in it.

After about a year, with the plates, together with regime outlined, the relaxed ligaments appear to tighten, muscles regain their power and plates can be discarded.

In the very rigid and spastic foot, manipulation and overcorrection in a plaster cast in position of marked inversion is indicated. Occasionally it is necessary to section the peroneal tendons for marked spasm, or lengthen the tendo achillis when shortened. The patient walks in these casts for several weeks until the spasticity and rigidity are overcome, when foot can be treated along the same principles as outlined above.

For the very relaxed flat foot, which will not yield to these measures, it is occasionally necessary to operate and by arthrodesis and shortening of the ligaments, rebuild the arch and alter the relations of the foot. Very recently Michael Hoke of Atlanta has described a new operation for this type of foot, that appears to be very satisfactory.

Another very common cause of foot pain is hallux valgus or bunion, usually caused by tight fitting shoes. The great toe is abducted, there is an actual exostosis of

metatarsal bone, and inflammation of the overlying bursa. Operative treatment is required in all advanced cases, and when properly performed the results are satisfactory and permanent.

One more cause of foot pain that should be mentioned, recently brought out by Friberg, are tumors involving the plantar aspect. He has noted that these are sometimes difficult to diagnose and some of them are discovered only after various measures have been tried without success. Excision is nearly always necessary.

BIBLIOGRAPHY.

1. Goldthwaite, J. E.: Obliteration of anterior transverse arch of the foot as a cause of metatarsalgia, *Boston Med. & Surg. Jour.*, 132:564, 1895.
2. Jansen, Murk: March foot. *Jour. Bone & Joint Surg.*, 8:262, 1926.
3. Miller, O. K.: A plastic foot operation. *Jour. Bone & Joint Surg.*, 9:84-91, 1927.
4. Roberts, P. W.: Prevention & treatment of weak foot in children. *Jour. A. M. A.*, 75:237, 1920.
5. Thompson: Feet, *Nebraska Med. Jour.*, 15:267, 1930.
6. R. E. Humphries & Taylor. *Amer. Jour. Surg.*, 7:808, Dec., 1929.
7. Hatch, E. S.: Diagnosis and treatment of flat foot. *N. O. Med. & Surg. Jour.*, 75:294, Dec., 1922.
8. Whitman: Orthopedic Surgery.
9. Jones & Lovett: Orthopedic Surgery.
10. Campbell's: Orthopedic Surgery.

DISCUSSION.

Dr. Edward S. Hatch (New Orleans): I hesitate to get up and talk about feet, because I have been harping on this subject for the last twenty-five years, but I want to congratulate Dr. Hyman on his excellent paper.

Inasmuch as all of us who are doing orthopedic work are talking feet, you would think the general public, at least the store people, would hesitate about advising just what to do in every case of sore feet they see, but that is not a fact. More advertising is being done all the time and more people are telling each other what should be done about feet than ever before.

I am sure that if the doctors who see this class of case would think more sensibly and rationally about treating feet and not just jump at a diagnosis and send the patient for this or that piece of apparatus, we would all be better off.

We see many children who have been advised to wear rigid foot support. That is one of the worst things that can be done. Children's feet are very flexible and to put a plate on a child's foot is certainly not to be considered. These patients are often seen by orthopedic surgeons with

the history that they are not walking as well as before plates were applied. On the other hand, the treatment of adults suffering from painful feet is quite a different proposition. In mild cases, exercises, contrast baths and flexible shoes, such as the Cantilever, often give relief.

Dr. Lovett was right when he said that in bad cases of flexible flat feet we must relieve the tired muscles first; that is, the foot must be supported for a certain time in order to rest these overtaxed muscles so that if we give exercises and flexible shoes to this type of feet, we will defeat our ends. Such cases should be supported with a flexible plate; each plate made carefully from a cast of the patient's foot.

Dr. Hyman mentioned tumors of the plantar fascia, which as Dr. Freiberg said in Memphis about a month ago, are often found to be sarcomas, and in spite of treatment go on to inevitable end of tumors of this type.

ESOPHAGEAL AND GASTRIC VARICES.*

A. E. GORDIN, M. D.,
JACKSON, MISS.

Varicose veins of the esophagus and stomach are more frequent than was formerly believed but they are not commonly observed and it is necessary to examine the literature for almost a century in order to obtain enough cases to make a summary. Very few cases are reported in American literature; however, French and German surgeons and pathologists report the conditions more often. The first case reported was one of esophageal varix by Diberder in 1837. Sometime later, 1838, Faunel published his case. A few cases were reported in the foreign journals up to 1880 and all attributed to alcoholic cirrhosis. In 1880 Leduc reported a case of hepatic cirrhosis of syphilitic origin which had led to a thrombosis of the portal vein and the veins of the esophagus and stomach. The first case of esophageal or gastric varix that I can find reported in America is a case of an erosion of the mucous membrane into a varicose vein near the cardia, reported by Van Bibber

before the Baltimore Academy of Medicine in 1886. This case was diagnosed at autopsy and the specimen was presented before the society by Councilman and published in the Maryland Medical Journal in 1887. In 1897 an editorial was written in the Medical Record on the importance of suspecting this condition and how invariably it was diagnosed gastric or duodenal ulcer. Although frequently discussed there seems to have been very little of importance written on the subject until Constant of Paris made a contribution to the study of this condition in 1924. He reported eight cases from 1900 until 1924. Even though nothing was written by Torek in the German Hospital, in New York I personally remember three cases coming under his observation while I was house surgeon in his service, from 1915 to 1917, and it was for this reason that I suspected the diagnosis of the case which I will later report. A case was reported by Karl Herman in 1927. The diagnosis was made by bronchoscopic examination; and in cases of esophageal varices the bronchoscope has been the most reliable diagnostic method. A case was reported in 1914, by Cobb of Marshalltown, Iowa. Text books refer briefly to the subject but give very little information of value. Several other papers have been written but were not available to me at this time.

Diagnosis is usually made at autopsy; however, in later years diagnosis has been suspected after hematemesis and made by bronchoscopic examination. Diagnosis has also been positively made in gastric varices at time of an exploratory laparotomy where ulcer has been suspected. It is interesting to note that in a number of cases reported at autopsy of esophageal varix, a gastroenterostomy had been previously performed without benefit.

Cases of esophageal and gastric varix have been reported in both the male and female at ages of between twenty and seventy years, but the larger number of cases were in persons between 35 and 40 years of age.

*Read before the Section on Surgery at the Sixty-fourth Annual Session of the Mississippi State Medical Association, Jackson, May 14, 1931.

Varicose veins of the esophagus are usually in the lower one-third and sometimes involve the cardia of the stomach. Gastric varices may involve any or all branches of the portal vein. Therefore, the varices may be either on the lesser or greater curvature of the stomach, the pylorus, the omental veins, the pancreas and spleen, or the veins of the small and large intestines. Although this paper is confined to gastric and esophageal varices, considerable has been written on varicose veins of the small and large intestines.

The varicose veins of the stomach or esophagus are not always the same but are more or less large and tortuous. In the esophagus they extend longitudinally and near the mucosa. In either the esophagus or stomach they may reach the size of a pencil. Their walls are thin but their surface smooth and regular except for swellings which exist in places. Erosions or ulcerations may be seen in them at autopsy. The cause of this condition is not known. Older writers attributed it to malaria because of the almost invariable enlargement of the spleen; syphilis has also been mentioned, cirrhosis is usually present and cardiac and renal lesions are frequent. The portal veins may be obliterated or partially obliterated by a thrombus. Some attribute the condition to a congenial weakness of the veins. They have also been seen along with neoplasms of abdominal organs. There seems to be nothing in the literature suggesting a definite cause for this condition.

The symptomatology is very restricted. The chief symptom is hemorrhage and is constant and, of course, is seen only after a varix ruptures. As a diagnosis cannot be made or even suspected until there is a rupture, it would be difficult to say whether hemorrhage occurs early or late. The vomiting of blood may occur suddenly and is the first symptom. In some cases the blood fills the stomach, and before vomiting the patient may have a feeling of weakness, shock, or fullness in the region of the

stomach, and hiccoughs; occasionally, though rarely accompanied by gastric colic. In some cases there is no vomiting, simply the feeling of weakness, fullness in the stomach, followed by black tarry stools. Rupture of a varix usually follows severe muscular exercise but may come on when the patient is asleep. Vomiting is usually expulsive and spontaneous and no nausea accompanies it. A single hemorrhage may cause death but more usually is repeated and gradually exsanguinates the patient in spite of all forms of treatment. The blood may be bright red or black depending on the length of time it remains in the stomach before being vomited. The secondary symptoms are those which accompany severe hemorrhages of any kind, such as chills, fever, shock, coldness and rapid pulse. Blood examination shows marked anemia. In nearly all cases there are no other clinical signs and until hemorrhage occurs the diagnosis cannot even be suspected. This hematemesis, of course, is more a symptom of the complication than of the actual condition. It is singular that there is no pain accompanying the condition.

As hemorrhage is the only symptom, I will mention other conditions which might be confused in the diagnosis, such as ulcer of the stomach or duodenum, carcinoma of the stomach, leukemia, cirrhosis, occasionally malaria, hemophilias, vicarious menstruation and rupture into the stomach of an aortic aneurism. From the cases reported I would recommend in all cases of hematemesis without gastric pains where other definite causes cannot be found that esophageal gastric varix be suspected.

In reporting my case which was referred to me by Dr. J. C. Walker, on March 4, 1929, I wish to acknowledge the cooperation and help given me by other members of the Jackson Infirmary Staff.

CASE REPORT.

The patient, Mr. C. A. H., a traveling salesman, white, aged 35 years and married, called Dr. Walker about 3 a. m. complaining of severe gastric

hemorrhage. He was suddenly awakened vomiting a large amount of bright red blood. He stated that he had just returned from Birmingham the day before where he had been under treatment for duodenal ulcer. There was no gastric pain nor had there ever been. He had had several less severe spells of haematemesis and was "going down," loss of appetite, etc. Upon admission to the hospital the patient gave me the following history: About two years ago he had begun to feel badly and was getting very weak, pale and nervous. He consulted the Mayo Clinic but no diagnosis was made (this was confirmed by a letter to me from the Clinic). He continued to work until about three months ago when he had a mild spell of hematemesis and consulted one of our own staff members. He was found to have a rather severe diabetes and was thought to have had a bleeding duodenal ulcer. This latter was partly confirmed by indirect roentgen ray findings when examined by Dr. Adkins. The patient seemed to improve on an ulcer diet with rest and treatment for the diabetes. He later had two to three moderately severe hemorrhages from the stomach so consulted Dr. Seale Harris who made a diagnosis of duodenal ulcer and kept him in his hospital for several weeks on an ulcer diet. He improved a great deal but on the very day he was discharged he had this severe gastric hemorrhage which I have mentioned.

Physical findings were negative except for a very pale, anemic almost exsanguinated white man, having chills and sweats and vomiting dark blood. No masses or other abdominal findings were found in the abdomen. Patient's blood showed signs of severe anemia with all of its characteristic findings. The urine showed sugar, the blood sugar was about 280, the coagulation time was three minutes. There was no albumin or casts in the urine. Temperature on admission was 102° and its maximum was 103° and minimum 98°. The pulse was variable between 100 and 160. Blood pressure was variable, 100 to 105 systolic and 70 to 40 diastolic. The patient was kept in bed on a strict diet being given duodenal feeding but complained constantly of a fullness in the epigastrium. His stools were almost pure blood and he had one more attack of haematemesis. He continued to get weaker and did not improve. Blood transfusions were given, intravenous drips, cyanathen, calcium and thromboplastin and serums without effect.

I had made a tentative diagnosis of varicose veins of the esophagus because of the repeated hematemesis, the constant bloody stools, anemia, in the absence of other definite symptoms. In spite of this his family insisted on an exploratory laparotomy because a diagnosis of bleeding ulcer had been made by several competent diagnosti-

cians and roentgenologists and because the patient continued to get worse on medical treatment.

On March 15, an exploratory operation was performed under local anesthesia. The abdominal cavity contained some free sero-sanguinous fluid. The stomach, intestines and other abdominal organs were very anemic. On careful examination of the stomach and duodenum no ulcer was found nor were any adhesions, induration or other signs of ulcer found. The striking findings were very pronounced. First, the liver was apparently normal in size, shape, feel and appearance and most pronounced of all was the appearance of the gastric and omental veins. The veins of the greater and lesser curvature of the stomach were large, about the size of a large lead pencil, they were smooth with the exception of a few dilated areas. The veins were so thin that I felt that should I touch one it would rupture. The blood was anemic, making the veins and their contents almost transparent. The veins of the stomach wall were the same though slightly smaller. The omental veins were very large, some about one-third of an inch in diameter. The mesenteric veins to the small and large intestines were also varicose but to a lesser degree. A thorough exploration of other organs was not made because of the local anesthetic, the condition of the patient and the very thin condition of the veins. The abdomen was closed without drainage. Patient made an uneventful recovery from the operation which, of course, did him no good. He remained in the infirmary for three weeks longer finally being able to be moved to Winterset, Iowa, his home where he died four weeks later from a severe gastric hemorrhage.

DISCUSSION.

Dr. A. Street (Vicksburg): The usual thing that comes to the mind when we hear of esophageal and gastric varices or varicosities of the veins of any other portion of the portal system, is portal obstruction. We know that the usual cause of portal obstruction aside from tumors pressing on the vein is cirrhosis of the liver and the usual type is portal cirrhosis. With portal cirrhosis there is splenic enlargement, developing after the cirrhosis has occurred. Occasionally the splenic enlargement precedes the cirrhosis of the liver and then we call it Banti's disease. In Banti's disease there is more of a hemorrhagic tendency than there is in cirrhosis of the liver, and in Banti's disease large gastric hemorrhages. Large hematemesis from the esophagus may be the first symptom which calls the attention of the patient with Banti's to the fact that he is sick. In the Banti type of disease, of course, we can remove the spleen. If we can do it early we have done the patient a great deal of good because splenec-

tomy has been demonstrated to arrest the progress in some cases.

It has been my experience that it is hard to get a patient with an early case of Banti's disease to consent to operation.

Walters has had some very good results in some of these cases by ligating the coronary veins but it is too early to be sure it is a procedure worth while. Of course, in the more advanced cases of cirrhosis of the liver, and they are usually advanced when you come in contact with them, you would hesitate to do any major surgery.

Dr. A. G. Payne (Greenville): We have noticed for a good many years that there have been less operations on the stomach, suggesting that there is a gradual decline in operating, favoring diet and treatment. Last year, in Dr. Lahey's address, that is, his Chairman's Address before the Surgical Section of the American Medical Association, he gave a resume of cases they had treated in their clinic in the recent past. It was remarkable the number of cases they were treating medically.

I want to say that there is nothing more alarming to a patient or to a physician than a hemorrhage from the stomach. I have had them myself and I know how alarming they are. I don't know but what there is something hereditary about duodenal ulcer because in the last year my son, who is thirty-three years old, had a massive hemorrhage from the stomach and came very near succumbing to that hemorrhage.

That brings up the question of the causative factors in these hemorrhages. Of course, we first think of gastric and duodenal ulcer. Then we think of cirrhosis of the liver, and then we have splenic anemia. Therefore, we ought to take more time and go carefully into the differential diagnosis of these conditions and rightfully should. There are so many cases that would be better left unoperated upon especially for a time.

Dr. A. E. Gordin (closing): Gentlemen, I appreciate the discussions by Dr. Payne and Dr. Street, and I know they feel like I do, that it is a negative discussion and more what we do not know about it than what we do know. I am impressed with how little has been said about this subject, especially in our American journals.

Especially interesting to me is the fact in hematemesis we should not jump at a diagnosis of duodenal ulcer. In nearly every case I have seen reported in the literature, a diagnosis of duodenal ulcer has been made, and in a great many cases a gastro-enterostomy has been done. I do not believe in gastro-enterostomy unless we have a definite reason for doing it.

Another thing striking to me in the consideration of this matter is that the liver has not been cirrhotic in a great many cases that were report-

ed and there was no portal obstruction. Therefore, it gets back to the cause of the varicose veins and superficial varicosity and we don't know what causes it.

CONGENITAL OBSTRUCTION (ATRESIA) OF BILIARY PASSAGE

WITH REPORT OF CASE.*

H. CARROLL MCLEOD, M. D.

HATTIESBURG, MISS.

Congenital obstruction of the bile passages has been a subject not touched upon so frequently in the literature. Probably this has been due for the most part to the short life of these infants, or to the fact that it is not recognized before death, and as most of us are situated we are unable to obtain autopsies.

In 1911, Howard M. Wolbach collected 76 cases of congenital obstruction of the bile ducts, including a case of their own.

In 1916, J. B. Holmes reported a case of his own, and collected 108 cases of congenital obstruction of the bile ducts, and by means of 80 drawings illustrated the conditions as he found them, and at what point, or points, there was an anatomical cause for interference with function.

J. Keith Gordon of Boston said in a series of 1086 consecutive autopsies at the Childrens and Infants Hospital, Boston, there occurred but four cases of congenital obstruction of the bile ducts.

W. E. Ladd, reported 20 cases. Eleven of these were operated upon. Eight of the eleven were amenable to surgical drainage of the bile, and of these six recovered. In Holmes' series of cases, about 16 per cent had atresia of the common duct, but neither the hepatic or the cystic ducts were patent. These are amenable to surgical treatment. It would be shown then that with a diagnosis of obstruction of the bile ducts, with an otherwise hopeless outlook, that surgical interference is advisable, with the hope that the anomaly of the bile passages might be of such nature that a communi-

* Read before the Section on Surgery at the Sixty-fourth Annual Session of the Mississippi State Medical Association, Jackson, May 13, 1931.

cation with the intestines might be effected.

In reviewing the literature it is shown that a cirrhosis of the liver always accompanies an obstruction of the biliary passages, and this was the condition present in my case.

After exhausting every effort to keep our little patient alive, and faced with death not long hence, my associate, Dr. L. B. Hudson and I, with the suggestion of Dr. Charles J. Bloom of New Orleans, resorted to surgery. In this we hoped that our obstruction was of the common duct, that the hepatic and cystic were patent, and that by draining the gall bladder we could at least turn the bile from the blood stream, which had now caused a complete break in the kidney, from which almost pure blood was passing. We thought that by stopping the bile, that the anemia, which was very pronounced, would clear, and that possibly the little life could be spared, until by a future operation the communication with the intestines could be effected. But upon opening the abdomen, or our secret box, of which the scalpel is the only key, we soon found that such was not the case, and surgery was of no avail.

CASE REPORT.

Twins delivered by me August 17, 1930. Boy baby, weight seven and one-quarter pounds, born first, at 8:20 P. M., and normal in every respect. Girl baby last, weight five and one-half pounds, born at 11:40 P. M., blue at birth, and it took from 10 to 15 minutes to get her to breathing, by immersion with change from hot to cold water, and vice versa. That night, after midnight, she turned blue again, and was then put into incubator, and kept there until Saturday, August 23, the day before she went home from the hospital. On the third day in the incubator she began turning yellow, as did the boy. Both were given galactose, the boy clearing, but the girl becoming worse, and this continuing for three days, she was given another round of galactose. During these few days she refused nourishment, and was given hypodermoclysis of five per cent glucose in one per cent saline for four injections, every eight hours, when she again began to eat. This first week she began vomiting, but stopped vomiting before leaving the hospital, August 24, 1930.

The first week at home she again refused some of her milk, and her weight dropped to five pounds,

and at this time the kidneys were making yellow stains on the diapers. The first week in September, Dr. Hudson, my associate, went out with me to see her, and agreed that the condition would clear. The liver was not palpable, no tumor mass was present, abdomen was soft, and patient was now gaining weight, but still very yellow with hard, ball-like, grayish-white stools, as before. We gave grey powders three times daily, which stopped the vomiting, relieved the constipation, but did not color the stools except very faintly.

When she was five weeks old she appeared normal in every way except color, eating more than her twin brother, and only vomiting once or twice a week.

During all this time she did not seem to have any pain, being an exceptionally good baby, sleeping soundly, and being hard to awaken for feedings. All through November she did fine apparently, but still vomiting occasionally, color remaining the same, and still hard, greyish-white stools.

About December the first the parents noticed she was turning a greenish yellow color, and stopped gaining weight, which was now nine pounds, and soon thereafter the vomiting became worse. About the middle of December Dr. Hudson saw her again with me, and we decided to make a roentgenogram, and have some blood pictures made. This was done December 18, the roentgenogram being negative, the blood picture and urinalysis as follows, with a negative Wassermann:

Erythrocytes, 1,960,000; Hb. 50 per cent. Color index, 1.3. Anisocytosis, poikilocytosis, polychromatophilia, and two normoblasts. Total leukocytes, 8,000. S-47, L-6 per cent, N-47 per cent; clotting time, four minutes. Urinalysis: albumen 1.5 per cent, insufficient for specific gravity, bile, occasional pus cells and epithelial cells. Red blood cells. No casts.

On account of the blood picture, I gave her two intra-muscular injections of whole blood, 20 c. c. at an injection, and sent her to Dr. Charles J. Bloom in New Orleans on December 22, with a diagnosis of biliary obstruction.

Dr. Bloom examined her, and on the strength of the blood picture gave us a diagnosis of pernicious anemia, and gave us the following treatment: Daily intra-muscular injections of 20 c. c. of whole blood; one-half c. c. of solarsen by intra-muscular injection, and Lilly No. 55 liver extract and iron.

On December 24, the blood picture had fallen to 1,210,000 reds, 30 per cent Hb., 1.2 color index, but the white cells had increased to 8,550, showing slight gain in resistance. Continued same treatment, and blood pictures were as follows:

December 27, 1930, erythrocytes 1,170,000.

January 2, 1931, erythrocytes 2,120,000 leukocytes 30,500

January 5 1931, erythrocytes 1,990,000.

January 8, 1931, erythrocytes, 2,570,000.

January 14, 1931, erythrocytes, 2,170,000, leukocytes 24,700, N-46 per cent, S-49, L-2 per cent, myelocytes 3, and 4 reticulated red cells.

January 18, 1931, erythrocytes 1,600,000, leukocytes 34,600, S-50, N-46 per cent, myelocytes 3, and 4 reticulated red cells.

From the first of January on to the fifteenth of January you could see that she was gradually losing ground, and her vomiting being very annoying. Her liver was very large, and spleen palpable.

I told the parents that the only thing I could see to do was to open the abdomen, and if the blockage was in the common duct, that by draining the bladder it might prolong life until a second operation could be performed, but I would not consider this unless Dr. Bloom agreed to same. So I again sent them to Dr. Bloom, they returning that night, January 21, with Dr. Bloom's diagnosis of biliary obstruction, with his suggestion that she be operated upon that night as she was failing fast, and delay was more dangerous.

Under 1 per cent novocain anesthesia the abdomen was opened, draining a straw-colored fluid; the liver was very large, extending almost to umbilicus. It was of a dark brownish-red tinge, very hard, with sharp borders. On looking for the gall bladder we found simply a greyish white cord, the size of a lead pencil, about one inch long. I tried to use an aspirating needle in this, but with no response. We tried to identify the ducts, but these were obliterated. Knowing that surgery was of no avail, we closed the wound, and the following morning the little one died.

CONCLUSIONS.

1. Persistent jaundice, either at birth, or coming on later with no trace of bile in stools, think of biliary obstruction, or atresia.

2. Rule out syphilis, although in reviewing the literature only four cases were reported syphilitic.

3. Progressing anemia from bile entering the blood, and breaking down the kidneys.

4. Marked cirrhosis of the liver which accompanies all biliary obstruction, but not all cirrhosis has obstruction.

5. Bile in urine staining diapers.

6. Increase in size of spleen.

7. Surgical intervention in protracted cases of jaundice in infancy, diagnosed congenital obstruction, or atresia of the bile ducts, because the location of the obstruction may be amenable to surgery.

REFERENCES.

Keith, Gordon J.: Congenital obstruction of the bile ducts and congenital biliary cirrhosis of liver, Boston M. & S. J., 1922.

Matheson, A., Tumpeer, I. and Harrison: Congenital atresia of bile ducts, Am. J. Dis. Child., 1930.

Parsons, L. G. & Hickman, E. M.: Biliary cirrhosis, report of case with atresia of intra-hepatic duct, but without atresia of extra hepatic bile duct, and with study of metabolism., Am. J. Dis. Child., 1926.

Rosenburg, L. and Judd, G. E.: Congenital atresia of bile ducts, its diagnosis, and consideration of surgical intervention on basis of pathology, Arch. Surg., 1929.

Smith, T. C. and Bell, R. T.: Congenital obliteration of gall bladder with atresia of extra hepatic ducts and amputa of vater, Kentucky M. J., 1929.

Kerley, Charles Gilmore: The practice of Pediatrics. Abt's Pediatrics, vol. 3.

DISCUSSION.

Dr. J. K. Oates (Laurel): The paper of Doctor McLeod presents a very rare condition and there is little literature on this condition.

First is the necessity for early recognition and the institution of surgical measures at once.

Next is how this may be recognized. Of course, Dr. McLeod, I am simply reiterating this to impress the fact, if I can, that if a case of jaundice comes on about the second week after birth and lasts over two weeks with enlargement of the liver and spleen and a secondary anemia, it should always be considered as an indication of an obstruction. There is a test that might help you out, known as the Van den Bergh test. I can't tell you how it is performed. It is a test that shows whether this bile in the blood is due to direct production in the blood or to an obstruction and reabsorption of the bile after it has been secreted in the liver. That is one of the main points in the diagnosis. Reading the literature on this subject a very interesting case came to my attention. That was a case of Dr. Irving, a case where the jaundice came on, I think, about the third year of life and lasted until the child was nineteen years old, and he operated on this child after it was nineteen years old, and after he had operated the jaundice cleared up and the child became all right after that, but during all that time—from the time it was three years old up until it was nineteen years old—it was jaundiced continuously.

Dr. R. L. Sanders (Memphis, Tenn.): Dr. McLeod's paper brings to mind a case I attended five or six years ago in the Baptist Hospital at Memphis. I shall make a little sketch of it on the board.

The patient was an infant about one week old, who had rejected all food taken since birth. A little barium was given to the child and a roentgenogram was made. It was seen that nothing passed through the pylorus and the condition was believed an unusual type of pyloric stenosis. The

abdomen was opened and the stomach was found to end blindly at the pyloric region. There was no duodenum. A gastro-enterostomy was done, but the patient was in such poor condition that it died that night.

Necropsy showed the common bile duct to be continuous with the end of the jejunum. The duct was completely strictured at the juncture point, and there was some dilatation of its proximal portion. Moderate jaundice was present. If this anomalous condition had not existed and the structures had permitted, an anastomosis between the dilated common duct and the jejunum might have been effective.

This was the only case of its kind I have ever seen and I thought it might be interesting to Dr. McLeod in connection with the case he has just reported. Our case was reported by a pediatrician associated with us in attending the child.

Dr. McLeod (closing): I have nothing else to say. I thank the gentlemen for the discussion.

THE RIGHT SIDE OF THE ABDOMEN FROM A SURGICAL STANDPOINT.*

JOSEPH F. ARMSTRONG, M. D.

JACKSON, MISS.

Every surgeon recognizes the difficulty of abdominal diagnosis, but we are all agreed that there are many more difficulties on the right side than on the left. When you think of the possibilities of error in the diagnosis of left sided abdominal diseases you see how few there are. It is true one may miss an early stomach cancer, one may mistake a spleen or kidney for a colonic tumor or one may not realize how often a sub-acute appendix will give pain in the left iliac fossa or even in the left hypochondrium. Diverticulitis may be difficult to diagnose and a stone in the left ureter may require some study, but these are trifles compared with the complicated conditions existing in the right side of the abdomen. This is probably due to the protean activities of the appendix, and from the purely vicious if unconscious association of right sided abdominal pain with disease of that organ. Thirty years ago it was rarely suggested that in its quiescent

stage between attacks the appendix could give rise to symptoms, whereas today we are growing more and more to realize that the appendix may give symptoms suggestive of disease of the organs of the upper abdomen as well as some of those of the pelvis. But in addition to the appendix, the right side of the abdomen has many more traps for the unwary and for the most skillful.

DUODENAL ULCER OR GALLSTONES?

Diseases of the gallbladder are traditionally difficult to diagnose, and its association with the duodenum, anatomically, perhaps, rather than pathologically makes confusion easy between disorders of these neighboring structures. Can we be sure of differentiating between diseases of these organs by the history, by the symptoms, by our abdominal examination or by the exactitude of the ancillary methods of survey? One is probably more apt to diagnose a cholecystitis as a duodenal ulcer than a duodenal ulcer as a cholecystitis. What are the points one relies on? Both these conditions tend to have periods of comparative freedom from symptoms. I am sure that the severe attacks of gallstone colic are more severe and less amenable to treatment than the severe attacks of duodenal ulcer. I know that sometimes the duodenal ulcer patient will give a very lurid account of his suffering, and I have seen patients in a bad attack, obviously in great pain, but it does not compare with the true gallstone colic with which will come vomiting, sweating and collapse, and for which there is no remedy but opium. But it is in the quiescent period, or perhaps one should say in the semi-quiescent period, that the real difficulty arises. In making a preliminary diagnosis before deciding what ancillary investigations should be made, one would do well to consider the following three points: 1. History of the attacks; 2, symptoms during the intervals (the duodenal case is generally well unless the appendix is also affected, while the gallbladder case often has flatulent dys-

*Read before the Section on Surgery at the Sixty-fourth Annual Session of the Mississippi State Medical Association, Jackson, May 14, 1931.

pepsia and right shoulder aching); 3, the examination of the abdomen (comparative rigidity of the upper rectus muscle in the duodenal case as compared with the same condition of the upper oblique muscles and Murphy's sign in gallbladder). Murphy's test consists of an examination of the gallbladder with the patient sitting up. The surgeon sits behind the patient, and placing his hands on the right and left hypochondria directs the patient to relax and take a series of deep breaths. With each expiration the hands are pressed into the hypochondria, the palms of the hands being brought more and more horizontal, after three or four breaths the gallbladder will be brought down during respiration onto the fingers of the right hand, and if it is tender there will be a characteristic catch in the breathing. This test differentiates admirably between gallbladder and kidney affections. One must not put too much reliance on physical configuration, although one is naturally inclined to consider the fair, fat and forty matron a more likely host to gallstones than the thin, fine-drawn male, nor must one expect too much help from the patient's likes and dislikes for food.

SPECIAL METHODS OF INVESTIGATION.

What of the ancillary methods? Examination by the roentgen ray has taken the foremost place in both cases. However, I think it will be agreed that radiographic examination after a barium meal does not give as high an average of success in duodenal as in gastric ulcer. This is due to the fact that a great majority of duodenal ulcers are superficial; that is, there is no crater in which the barium can lodge, while in the lesser curve ulcers, at any rate as the surgeon sees them, a crater is the rule. Craters are rare in duodenal ulcers unless the ulcer is on the posterior or inner surface, and these form quite a small proportion, and then the shape of the duodenal cap may be distorted by spasm due to many things, among them cholecystitis. The examination of the gallbladder by

roentgen ray after the administration of the dye is being used generally at the present time and with a certain amount of success. However, it would be dangerous to rely on this alone for your diagnosis. The Graham-Cole test consists of the administration of the dye by mouth or intravenously with the pictures taken at varying intervals. A healthy gallbladder casts a shadow which gradually becomes more concentrated and finally disappears. The other method is the chemical examination of the stomach contents in case of duodenal ulcer, and the microscopic and chemical examination of the duodenal contents in gallbladder disease. I am afraid we are rather disappointed with the test meal as a method of clinching the diagnosis. When this method came into general use great things were hoped for it, and the curves certainly looked very instructive, but further experience shows such wide variations in the consecutive examinations that one has begun to lose faith in it. Perhaps the most helpful examination is that of the resting juice which may show varieties, both chemical and microscopic, which may be very useful. The examination of the duodenal contents by Vincent Lyon's method has never come into general use as a diagnostic procedure; however, it may be useful in the hands of some diagnosticians.

RENAL LESIONS.

As to the renal lesions: It probably has been the experience of everyone here to confuse a case of urinary stone with a case of appendicitis, and I dare say many appendices have been removed with no relief until the passage of a stone from the kidney has taken place. This brings me to the subject of the differentiation between appendicitis and some renal lesions. The differential diagnosis of appendicitis and ureteral stone may be very difficult if for any reason the stone cannot be localized by the roentgen ray. One has then to rely upon the possible appearance of urinary

symptoms, the presence of abnormalities in the urine, and a cystoscopic examination. The only safeguard is that which results from our hospital system where every patient passes through many hands before the diagnosis is definitely settled. Acute infections are more easily diagnosed than the chronic recurring attacks. One should not mistake a perinephritic abscess of a hematogenous origin for a retrocecal appendix abscess. The former is never so acute, and rarely leads to an abdominal mass. But to distinguish between a retrocecal appendicitis and an acute ascending pyelitis of pregnancy may be very difficult, especially if the kidney is not functioning, so that the pus does not appear in the urine. The really valuable signs of pyelitis are: 1. Acute tenderness in the costo-vertebral angle; 2, an initial rigor and a temperature perhaps as high as 104° , but certainly higher than that which is usual in acute appendicitis. Deitel's crisis (or intermittent hydronephrosis due to a kinking of the upper ureter) may lead to error, but there is rarely any need for hurry in these cases and a pyelogram will settle the diagnosis without difficulty.

APPENDICITIS.

There is an old warning of the danger of mistaking a perforated duodenal ulcer for an acute appendicitis on the grounds that the duodenal contents tend to gravitate to the right iliac fossa and give rise to signs in the area of the appendix. This should never give trouble, even in the absence of a previous history of duodenal indigestion. The onset, the general character of the abdominal rigidity (which is most marked) and especially the condition of the patient, all tend to make the differentiation easy, and I do not feel that the mistake should be made, nor is it, I believe made very often. We all realize that one seldom sees what might be called a typical textbook case of acute appendicitis. It is seldom that we see all the symptoms in any one case; however, be that as it may, we are learning

to make our diagnosis of appendicitis in spite of the absence of some of the so-called typical symptoms. One patient may have nausea, another may not; one may have severe pain in another the pain may be comparatively light, in one case the leukocyte count may be low or even subnormal; in another it may be much higher. But what we look for is the association of one or more of the positive symptoms with tenderness or muscular rigidity and the general appearance of the patient. Here, I would like to draw a distinction between pain and tenderness. Conditions giving rise to tenderness are much more easily diagnosed than those giving rise to pain only, for pain is purely subjective and varies in significance according to the sufferer's general makeup. Tenderness cannot be hidden, pain might be suppressed. There is a subconscious reaction to tenderness by the contracture of the muscles over the tender area, and this alone, in many cases, is the clue as to the condition with which we are dealing. Perhaps the greatest difficulty of all, however, is to make a correct diagnosis in the common case of a patient complaining of right iliac fossa pain. Take for instance the following cases: Three girls consult you, and each gives a story of vague diffuse abdominal pain confined to the right side. The first is apparently in excellent health, you can make nothing out in examination, but you get a history that she has been vigorously engaged in some sport such as lawn tennis or basket ball, all designed to put a strain on the right lower abdomen. You suspect a strained external oblique, or even a commencing hernia. The second is equally healthy. She tells you that last October she had a rather severe attack of abdominal pain, perhaps with vomiting, that she had to lie up for a week or so, and that she still gets occasional discomfort in the right iliac fossa. You suspect an attack of appendicitis which has not entirely subsided. The third is not quite so healthy or active,

and on cross-examination she admits that the pain has been there for some time, that it gets worse as the days goes on, but is relieved on lying down, that she is tired at night and is constipated. You suspect enteroptosis, and find confirmation on examining her general physique and noting the skeletal changes, the loss of weight, the muddy complexion and the circulatory abnormalities which characterize this most common and distressing malady.

ENTEROPTOSIS.

It is often asked whether roentgen ray is a help in the diagnosis of appendicitis or enteroptosis. The answer is, that it will help but its value must not be exaggerated. It used to be said that a pathological appendix was evidenced if the barium entered the appendix and remained there for a long time, thus showing that the peristaltic power of the appendix was diminished by fibrosis of the wall, or if the barium did not enter at all, thus showing obstruction of the lumen. But now we all are agreed, I believe, that no radiological opinions are to be expressed unless the appendix is visualized. If it is, some opinion can be passed as to whether it is tender (a rather doubtful point) or whether it is abnormally fixed. Enteroptosis, or at any rate a pathological hypermobility of the colon, is also very difficult to estimate by roentgen ray. It once was thought that the hepatic flexure was up under the ribs, and the caput caeci above the level of the pelvic brim. We know now that in the erect position in health the hepatic flexure is rarely much above the intercrystal line, and the caput caeci is quite often in the true pelvis. The same is true of the transverse colon, which, instead of passing obliquely across the umbilical region up to the splenic flexure, much more often sags in the middle almost into the pelvis. What, then, are the radiographers' evidences of a pathological enteroptosis? They may be summed up as evidence of abnormal fixation and delayed function. If the cecum, or

transverse colon are abnormally placed and fixed, that is pathological, and if the barium remains too long in the lower ileum or cecum, this is pathological. From this, one may be led to say, that it is more surgical to free abnormally fixed organs than to fix abnormally free ones.

DIAGNOSIS IN CHILDREN.

In passing, I would like to say just a word as to surgical diagnosis in little children. We all realize that there is where we generally meet the most baffling cases. symptoms, of which colicky pain is the most easily confused with the chronic appendix are caused by tuberculous mesenteric glands. These may occur at any age, however, but are more often seen in children. They give rise to a characteristic train of symptoms, of which hcolicky pain is the most important. A good deal of discussion has centered around the question of whether chronic appendicitis does occur and cause symptoms in children. The general consensus of opinion seems to point to the fact that it does, and that some, at least, of the indigestion so common in children is due to lesions of that organ. Generally speaking, however, in children, especially in little children, localization is not very exact, and the patient seems to complain of pain in the umbilical region rather than in the right iliac fossa. Of all forms of interval appendicitis in children the mucocele gives rise to symptoms most closely resembling those of tuberculous mesenteric glands.

Finally, I might perhaps suggest that we should all make fewer mistakes in diagnosis in right sided abdominal lesions if we were not obsessed by the everpresent shadow of the appendix.

DISCUSSION.

Dr. V. B. Philpot (Houston): There are just two or three points I might try to bring out in the diagnosis of a few of these conditions.

First, I should like to mention the braid test for duodenal and gastric ulcers. It is not a new test, but I believe it is a fairly satisfactory one. It consists of the use of a freshly laundered braid, something like one inch wide, eight to ten inches

long, the end of which is attached to a string long enough to reach from the stomach well out through the mouth. The patient is allowed to swallow this braid. It goes on down to and one end through the pylorus into the duodenum. After remaining there a certain length of time it is withdrawn by the string. There will be in most instances a stain of blood or black material on the braid where the ulcer is located. Furthermore some idea as to the size of the pylorus can be ascertained by the constriction made on the braid.

Second, a point in reference to the diagnosis of appendicitis was brought out in our local medical society that I would also like to mention. As you know, tenderness over the appendix is the most accurate diagnostic point in appendicitis. Sometimes this is rather hard to elicit due to the fact that the appendix may be distant from the anterior abdominal wall. The patient is lain on a table flat on the abdomen. The appendix then is prone to drop forward after which the hand is brought under the abdomen from the left side and pressure over McBurney's point is made. Tenderness from an inflamed appendix is far more apt to be found in this position, due to the closer contact of the appendix to the anterior portion of the abdominal peritoneum.

Third, there is one other point in the diagnosis of what is generally considered cramp colic; that is pressure over the abdomen will relieve pain, whereas if you have an acute infection, you will cause pain.

Dr. George Brown (Water Valley) I would like to say that in looking at the abdomen from the right side, I think we can oftentimes make lots of mistakes by just looking at it from the right side. I think it is very important to regard the abdomen as a whole. We find lots of conditions that begin with epigastric pain, that may be associated with general abdominal tenderness and general abdominal rigidity, if anything, more marked in the lower right quadrant, and yet we may be dealing with an acute pancreatitis. We know, too, in ovarian cysts it may be either on the right side or left side, and I feel it is important to regard the abdomen as a whole, rather than to look at it from a one-sided view point. Some of the pitfalls of abdominal diagnosis are due to not looking at the abdomen as a whole.

Dr. Wm. F. Hand (Jackson): Surgical conditions of the abdomen are sometimes quite difficult to diagnose properly. I recently had a case which simulated appendicitis with abscess formation but on opening the abdomen I found a psoas abscess which had ruptured upward, instead of migrating downward as usual, and there was a large accumulation of pus in the bed of the right kidney.

There is one point in the diagnosis of perforating duodenal ulcer which has recently come to

my attention. It may or may not be of value but I think it worth while to bring to your attention. I have recently had four cases of perforated duodenal ulcer, proven, at operation, and three of these cases complained of definite pain just below the tip of the right scapula, pain somewhat similar to that produced by gall-stones, but no stones were present. Incidentally, three of these cases had strongly positive Wassermann tests.

Dr. E. C. Parker (Gulfport): Just a few little things. I would like to throw out a suggestion in the diagnosis of appendicitis. I have found in my experience a few points that have been worth a great deal to me. When I start to examine the abdomen, I start on the left side. On the left side, directly opposite the appendix, I do a percussion. If you have an appendicitis, the percussion will refer back to the right side. Then place your hand in and withdraw it quickly and that will refer back to the right side. Then I will come to the right and left sides, two or three millimeters from the umbilicus and press there. If you have a kidney or ureteral involvement, it will produce severe pain. I leave the appendicular region as the last part of the abdomen to examine, but I would like for you to try using the pressure two or three millimeters to the right or left of the umbilicus. If that is painful, you had better look out for either stricture of the ureter or kidney complications or a kink in the ureter.

Dr. C. C. Hightower (Hattiesburg): Of course the doctor didn't start out to enumerate all the things that might happen on the right side, but I thought perhaps that some of us have had some unusual things on the right side and it might be interesting to mention them. I want to mention one I had. The patient had all the symptoms of acute appendicitis. I opened up the abdomen and found a complete tumor of the great omentum. I took the entire omentum out. That was the only trouble the patient had and there was complete recovery.

Dr. G. E. Eddy (Heidelberg): In regard to appendicitis in children, parasites are often the cause of the pain we have near the umbilicus. In our country, where we have so many hookworms, so many intestinal parasites, it is very commonly true that the appendicitis in children is due to intestinal parasites. I thought for a long time worms had gone out of style with children, but lots of them are wormy. Intestinal parasites have a great deal to do with the pain near the umbilicus in children and possibly a lot of their appendicitis is caused by that.

Dr. Armstrong (closing): I want to agree with Dr. Parker in the face we should examine every other part of the abdomen first, leaving the appendix to the last. We usually go in with the idea of appendicitis, but we should rule out everything else, and leave the appendix to the last.

PYELOGRAPHIC STUDIES WITH EMULSIFIED LIGHT BROMINOL.*

W. A. REED, M. D.,
and

W. F. HENDERSON, M. D.

NEW ORLEANS.

The subject of urography may be considered by some of you to be appropriately discussed only before a group of urologists and roentgenologists. However, the marked advance that has occurred in this procedure has made it such a valuable aid in the diagnosis of obscure renal conditions that it is being utilized more every day, until it now compels the attention of the internist and general surgeon equally as much as it does the urologist and roentgenologist.

Almost thirty-five years ago the ambition of visualizing the urinary tract was expressed by Tuffier who suggested that the course of the ureters might be outlined in a radiogram if they were catheterized by bougies that were opaque to the roentgen ray. Consequently in 1901 and 1902 we find Kolischer, Löwenhardt and von Illyes utilizing the idea in the employment of catheters into which were placed fine silver wires. In 1905 Fenwick improved this procedure by the construction and use of catheters whose walls were impregnated with lead. However, the year previous to this Klose had gone one step further and attempted to outline the renal pelvis by injecting it with bismuth sub-carbonate, but the procedure failed because of the uncertainty of the shadows cast and the irritation produced by the retention of the bismuth.

Finally, success was achieved in 1906 when Voelcker and von Lichtenberg were able to obtain for the first time a satisfactory outline of the pelvis and ureter by filling it with a colloidal silver, known as collargol. At first a 2 per cent solution and later a 5 per cent solution was used, and for several years the procedure held an important place in the field of diagnosis. Within

a short time, however, it was found that collargol frequently resulted in extensive renal destruction, and its use was almost entirely abandoned.

During the following years many different methods for outlining the upper urinary tract were tried, Burkhardt and Polano advocating oxygen as a medium in 1907, argyrol by Keyes in 1909, cargentos by Uhle and Pfahler in 1910, zeroform in oil by Doderlein and Kronig in 1913, and finally silver iodide by Pfahler, Kelly and others in the same year. It was during these early years of experimentation that Baker for the first time suggested the use of gravity for filling the pelvis with the chosen pyelographic material. At the same time many disastrous results from pyelography were being reported, ranging in severity from edema of the kidney with shock, to rupture of the pelvis or destruction of the kidney and death. This of course resulted in further studies with regard to the amount of pressure necessary to produce injury to the kidney. Foremost among the investigators of the subject was Tenant who in 1913 found that a pelvic pressure of 40 m.m. of mercury was sufficient to infiltrate the kidney proper and who therefore suggested that the pressure used never be allowed to go over 30.

The most notable advance was made by Burns in 1915 who for the first time employed an electrolyte, thorium nitrate, as a pyelographic medium, which, while it produced very satisfactory shadows, was soon discarded because of its toxic effects.

Finally, in 1918, Cameron suggested the use of a 25 per cent solution of potassium iodide. The same year Weld reported splendid results from sodium bromide. Both of these media cast better shadows and were less irritating than anything that had been used up to that time. Later, Cameron substituted sodium iodide for the potassium iodide in a strength of 12.5 per cent. It was very soon realized that of the two, sodium iodide was the superior, and within a short time it became the accepted medium for pyelography.

*Read before the Louisiana State Medical Society, New Orleans, April 14-16, 1931.

In spite of the fact that sodium iodide produced excellent shadows, it also occasionally caused considerable pain, and at times renal suppression of a more or less marked degree occurred. Consequently, it was generally conceded that the ideal pyelographic material remained undiscovered.

Following the lead of Sicard and Forestier, who in 1923 found that iodized poppy seed oil made an excellent medium for outlining body cavities, there have been produced a number of both oily and aqueous combinations that cast pyelographic shadows equally as well and with far less discomfort to the patient than sodium iodide. The best of these are emulsified campidol, introduced by Frazier and Glaser, with the aid of George Raiziss, and light brominol, both of which were produced in the Dermatological Research Laboratories.

The radiograms that we wish to show have all been made with an emulsion of light brominol.

Emulsified light brominol is a stable grayish, white, oily emulsion of bromine, oil, acacia and water. It contains 40 per cent of bromine, has viscosity of about twice that of water, is non-irritating, of very low toxicity and casts very satisfactory roentgenographic shadows.

As you readily appreciate, the cardinal requirements of an ideal pyelographic medium are:

- (1) That it must be sufficiently liquid to be easily injected.
- (2) That it cast a dense shadow.
- (3) That it be readily miscible with urine.
- (4) That it be sufficiently inert as to allow the making of bilateral pyelograms with safety.
- (5) That it be non-toxic, and produce little or no pain or shock to the patient.

All of these requirements we believe are fulfilled by emulsified light brominol.

It is easily injected through catheters of the smallest size.

It casts shadows of sufficient density to bring out the minutest detail even in markedly obese individuals.

The ureters are particularly well visualized since this medium, while sufficiently liquid to flow easily, still possesses a viscosity that causes it to adhere to the ureteral walls longer and better than sodium iodide. Furthermore, a dense shadow is produced with a lesser concentration than is required with sodium iodide.

It readily mixes with any urine or water that may be present in the renal pelvis and never results in the formation of confusing globules of oil or air so frequently seen when using other oily preparations.

Bilateral pyelograms are made routinely and without fear of shock or temporary renal suppression.

Negative stone shadows are plainly visible.

Up to the present time a pyelovenous back flow has never been noted following its use.

Since emulsified light brominol is white in color, one is usually able to determine when the renal pelvis and ureter are completely filled even before the patient experiences a sensation of fullness in the kidney area by observing through the cystoscope the moment that it spurts out into the water filled bladder alongside the catheter.

And finally, but certainly the most important factor in its favor, is the freedom of distress to the patient following its use. We have employed it in the making of both unilateral and bilateral pyelo-ureterograms, as well as cystograms and urethrograms in at least one hundred cases, in many of whom there was extensive renal pathology and in none of these was it necessary to administer more than an occasional dose of aspirin and codeine to relieve the discomfort caused by the procedure, regardless of whether the patient was ambulant or hospitalized.

Inspection within the bladder the day following the use of emulsified light brominol as a media for obtaining a cystogram

shows the mucosa to be completely free of the intense inflammation that invariably results when using sodium iodide. Consequently, one may reasonably deduce that it acts equally as kind when injected into the renal pelvis.

There is, however, one feature in the use of emulsified light brominol to which there may be some objection. This is the fact that, due to its white color, the visual field within the bladder become clouded because of its regurgitation down the ureter after the pelvis has been filled for pyelogram.

As a rule, however, the inspection of the bladder has already been completed, so that, this possible objection, in my opinion, is of little consequence.

With the present rapid progress and widespread interest in intravenous urography, it is only reasonable to anticipate that some of you are wondering why retrograde pyelography is still being practiced. While it is quite true that normal or near normal kidneys can be made visible by this method, allow me to remind you that in an organ whose excretory function is impaired even to a moderate degree the elimination of any intravenously administered preparation is never sufficient to cast a satisfactory shadow in a radiogram, and it is in just such kidneys that we are especially desirous of learning the actual shape and condition of the renal pelvis and calices. Furthermore, there is always the risk of an adverse reaction following the use of any intravenously administered preparation. And, too, the several manufacturers of the various brands of combinations used for intravenous urography plainly state that its use in contra-indicated in "cases of serious bilateral impairment of renal functions," which immediately rules out a fairly large group of cases in whom retrograde pyelography with emulsified light brominol can be used with impunity.

It is our belief, therefore, that emulsified light brominol more nearly fulfills the requirements of an ideal pyelographic

media than anything yet advocated or used.

Dr. Henderson, who has been a co-worked with me from the roentgenological side, will now demonstrate to you a few slides of the many pyelograms that have been made with this new preparation.

DISCUSSION.

Dr. R. L. Gordon (New Orleans): I have not used this particular agent in urography, but if it does all that is claimed for it, I would say that it surpasses practically every method we have at our command. I have been told that with this medium it is possible to do a cystogram one day and the next day have a bladder with no sign of inflammation. This must be a pyelographic agent of extraordinary mildness, and in view of the pictures Drs. Reed and Henderson have shown, certainly must be very effective. I also understand that there is no pain following its use and that shock is absent. Both of these complications follow the older methods.

Dr. M. H. Foster (Alexandria): I have done considerable work with opaque media, especially lipiodol, but I have not used light brominol. Lipiodol is too heavy to use through the catheter, as it must be used in this work, and a substitute for it will be most acceptable, though sodium iodide has given me very satisfactory results.

I rise to comment on the association of appendicitis and kidney disease. Two striking cases come to my mind. A young soldier who had been operated on for suppurative appendicitis 8 days later developed pain in the left loin. On catheterization 50 or 60 c.c. of foul, fetid fluid was withdrawn, and more bacteria were present than I had ever seen. That was months ago and he is still under treatment. A young girl was operated on for suppurative appendicitis, and 8 or 10 days later a pyelogram disclosed a destructive pyonephrosis on the left side. She is still draining pus from that lesion. I mention these two cases to show that a dangerous appendiceal condition does not eliminate a grave renal lesion.

Dr. H. W. E. Walther (New Orleans) What bactericidal value has light brominol? Has it been studied from this standpoint? It seems non-irritating, if we are to judge by the grave cases in which it has been used. I have had no personal experience with it, and I have never been able to reconcile my conscience to introduce anything containing oil into the ureter, but I may come to it if this agent does all that is claimed for it by a conservative urologist like Dr. Reed.

Dr. W. A. Reed (closing): In answer to the discussion of Doctor M. H. Foster, I wish to state that we have not hesitated to use emulsified light brominol in the face of severe infections, and we

cannot see that it has done any damage. Certainly we could determine none.

As to its bactericidal effect, a question asked by Dr. H. W. E. Walther, I am not sure that it possesses any. When we first began to use it, the Abbott Laboratories put it up with metaphen; recently we have been using it without this addition, and we see no difference in the results.

As a matter of fact, we all know that it is not so much the introduction of bactericidal substances into the kidney which produces results as the drainage and dilatation of the ureter, which the passage of the catheter and the use of water alone would probably achieve without the introduction of anything else.

This is not a true oily preparation. If you have a few drops of it between your fingers, you can make out the oily content, but it is not a heavy oil and we do not hesitate to use it in the kidney. Heavy brominol might remain in the pelvis of the kidney because of its extreme weight and thickness, and thereby produce some irritation, but this agent is entirely different and at no time has it produced effects of an adverse nature.

NON-UNION OF FRACTURES.*

G. C. BATTALORA, M. D.,

NEW ORLEANS.

Because of the increase in frequency of occurrence of fractures in recent years there has been a stimulating of research in fracture problems. One of the most interesting of these problems is that of non-union. There has been not only an increase in the incidence of fracture cases but a relative increase in the proportion of non-union cases. This may in part be accounted for by the severe types of fractures met as a result of industrial and automobile accidents. In various large series of fracture cases the occurrence of non-union has been placed at between two and five per cent.

Much has been written concerning the general causes of non-union, such as nervous disorders, constitutional diseases, syphilis, malnutrition, primary and secondary anemias, and senility, but the most important factor in its occurrence seems to be a local one. With regard to syphilis, in my experience, this causes delayed union in a

much larger proportion of cases than non-union. How many times do we see fracture cases in which the Wassermann is positive but in which the healing follows a perfectly normal course? I do not mean to imply by this that active treatment of the syphilis should not be instituted immediately, because by doing this the patient's general health is improved, and any factor causing improvement in health is reflected in a speedy union of the fracture.

As to the local causes of non-union, infection, separation of the fragments, loss of bone substance, and interposition of soft parts are the essential factors. In infected compound fractures non-union occurs much more frequently than in simple closed fractures. This is most probably due to the overgrowth of fibrous tissue stimulated by the infectious process resulting in dense scar tissue. Cowan, in his experimental work, has shown that non-union may result where there is an overabundance of granulation tissue derived from the periosteum, in which the fibrous element predominates, crowding out the less virile endosteal granulation tissue. In these cases the hypertrophic granulation tissue begins contracting before there has been deposited a calcium groundwork, thus obliterating the blood vessels, with the resulting development of dense scar tissue. The endosteal granulation tissue, which is prevented from extending beyond the ends of the fragments due to the excessive development of the granulation tissue, forms an endosteal callus within the marrow cavity at the fracture site, thus forming plugs which become calcified. It is thus plug that has to be opened at the time of operation of bone-grafting to allow the endosteal osteoblasts to become again active. This may be the cause of non-union in that group of fractures, particularly noted in the lower third of the tibia and in the middle third of the humerus. Cowan is of the opinion that this excess proliferation of the periosteal granulation tissue is present where there is consider-

*Read before the Louisiana State Medical Society, New Orleans, April 14-16, 1931.

able laceration and separation of the periosteum.

In cases where there is wide separation of the fragments, union fails because of the inability of the osteogenetic elements to bridge the gap. This is frequently the case in fractures of the patella due to muscle action on the proximal fragment, and for this reason immediate operation in these cases is indicated. This condition is also noted in cases where excessive traction is used as in fractures of the femur and of the humerus.

In treating markedly comminuted compound fractures every effort should be made to conserve as many of the bone fragments as possible. Just because a bone fragment has been separated from its periosteal attachment is no reason it should be removed. Failure to observe this principle may result in the most severe type of non-union, with total loss of use of the limb. This type is exemplified by a case of a young woman of 25 years who had sustained a gunshot fracture of the middle third of the right humerus. Initial treatment in this case consisted in a thorough debridement including very one of the comminuted fragments. The case was seen by me eight months later with the following condition, non-union of the humerus with a three-inch gap between the fragments and marked osteoporosis of the fragments. It is probable that if a more conservative line of treatment had been followed at first a different result may have been obtained.

In any complete fracture of a long bone where crepitus cannot be elicited, interposition of soft parts should be suspected. This may vary from interposition of a strip of periosteum to that of a thick muscular mass. This is usually the case in long oblique fractures of the middle third of the femur. In this type the sharp end of one of the fragments becomes engaged in the surrounding muscular tissue and no amount of traction will disengage it. In this group early operation should be indicated.

Besides these factors, any condition causing motion at the site of fracture may cause delayed union or ultimately, non-union. This is explained by the fact that movement of the bone fragments causes some breaking up of the soft callus or precallus granulation tissue with hemorrhage resulting. This additional hemorrhage results in additional granulation tissue formation which on maturing causes obliteration of the local blood supply. This contradicts the general belief that a little motion at the site of fracture is beneficial. Therefore any fracture which has not undergone complete ossification should be very carefully handled, fixation during the course of treatment should be efficient, and too early weight-bearing should be prevented. The ideal treatment of any fracture is one that brings about reduction at the earliest possible moment, before there is extensive extravasation of blood into the surrounding tissues, and one which provides for adequate immobilization until union has occurred. The old adage "splint them where you find them" cannot be too forcibly impressed, in fact, "reduce them where you find them" may be a better rule. During the early part of 1930 there was admitted to the colored male fracture service at Charity Hospital a case of fracture of the middle third of the femur of 6 weeks' duration in which there was end to end apposition of the fragments but with about 45 degree angulation. Roentgenograms showed the presence of a large callus, and clinically the fracture was firmly united. Under an anaesthetic it was possible to forcibly correct the malposition, and a plaster spica was applied. Skiagraphs made four weeks later showed complete absorption of the callus with absolutely no effort at union. Fortunately, after a very prolonged period union was again established.

Non-union differs from delayed union in that the former is a terminal state. In true non-union no method is of any avail except operative procedures. In delayed union much can be done to hasten ossification.

Functional use of the limb, with support, is indicated. In fact, any and every measure which will improve the local blood supply should be instituted. Among these may be mentioned passive hyperemia at the site of fracture, massage, diathermy, sinusoidal current and general ultraviolet ray exposures. The effect of passive hyperemia has been experimentally corroborated by Pearce and Morton. They found that by ligating the main venous trunk coming from the site of a fracture that ossification may markedly accelerated. Clinically this may be done by applying a sphygmomanometer to the limb proximal to the site of fracture and inflating the rubber cuff until the circulation is entirely cut off, and then deflating the cuff until pulsations are noted in one of the distal arteries. The pressure is maintained at this point for a variable period, depending on the tolerance of the patient, and repeated at stated intervals during the day.

Numerous drugs are advocated in delayed union. The most frequently used of these are calcium salts, parathyroid extract, and viosterol. The basis for their use has been the work of Petersen. He contends that in cases where the product of the numerical values of the blood serum calcium and phosphorus per 100 c.c. of blood falls below 35 delayed union or non-union results. Numerous other observers have failed to corroborate these findings, and the consensus of opinion is that these determinations are valueless. As a matter of fact non-union may result in cases where the numerical value is much higher than this, and rapid union may result in cases where the numerical value is much higher than this, and rapid union may occur in cases where the value is much less.

None of these measures are of benefit in cases of true non-union, although in a recent article E. J. Berkheiser of Chicago has presented a small series of cases of apparent non-union in which he has obtained union by the oral administration of a mixture of calcium salts, phosphorus, mag-

nesium salts and silicic acid in the proportion in which they are found in normal bone.

Treatment of non-union involves the following principles: (1) removal of all fibrous tissue from about the site of fracture; (2) accurate reduction of the fracture; (3) stimulation of osteogenesis by bone-grafting; and (4) prolonged and efficient fixation following operation.

In certain recent cases of non-union, notably those where there is marked displacement of the fragments or interposition of soft parts, simple approximation of the fragments with freshening of the bone ends will suffice. This is exemplified in fractures of the middle third of the femur or humerus. Fixation (internal) may be obtained either by the use of a Lane plate or by the use of absorbable material such as kangaroo tendon. External fixation should also be used.

In cases of long standing, especially in those cases where there is marked osteoporosis of the fragments, stimulation of osteogenesis should be brought about. This is most effectively brought about by the use of autogenous bone grafts. In speaking of bone grafts I have reference only to autogenous grafts, for these are by far the most efficient. Bone grafts may be classified into three types: (1) intramedullary, (2) inlay, and (3) onlay or splint grafts. In the latter class may be included osteoperiosteal grafts. The use of the intramedullary graft should be discontinued because by its use the marrow cavity is cut off at the site of fracture, thus preventing the formation of endosteal callus which is one of the important elements in union.

The sliding bone graft should be used only in recent cases of non-union, that is, in those cases in which there is not marked osteoporosis. In cases of long standing, the graft should be obtained from some source other than the fractured limb. Osteoporosis of the fragments implies low osteogenetic power, and if the graft is obtained from near the fracture site absorption of the graft may follow. By securing a heavy

graft from healthy bone, we not only introduce into the field an element that will stimulate lagging osteogenesis but we feel that there is much greater chance of survival of the graft. The technic of this type of bone-grafting is classical and needs no further elaboration. Suffice to say that the graft should be fixed firmly to its bed and efficient external fixation applied. A well molded plaster cast is the best support. This should be applied to include the joint above and below the site of fracture, and should not be fenestrated for dressing of the wound. If for any reason inspection of the wound is indicated the cast should be bivalved. In a fenestrated cast there develops some edema in the soft parts at the site of the fenestrum, and disturbances in the local circulation usually result. Use absorbable skin sutures to avoid the necessity of opening the cast for suture removal.

The cast should not be removed for a prolonged period as calcification may be markedly delayed. The time for removal to inspect the limb should be from about 6 to 8 weeks after operation. If union is not firm a new cast should be immediately applied.

In certain cases where there is a gap between the fragments and where the ends of the fragments are tapered conically, a massive onlay graft is indicated. The graft is removed from the tibia and the endosteal surface smoothed so as to form a long bone plate. The exposed surface of the fragments should be chiseled flat to receive the graft, and the graft held in position by means of bone pegs. This type of graft was first advocated by Willis Campbell. The case mentioned earlier in the paper where there was a 3-inch gap in the humerus was treated by this method. The bone fragments were so atrophic in this case that it was possible to trim them to the required shape with Mayo scissors. This marked osteoporosis probably accounted for the prolonged delay in ossification, for there was no roentgenray evidence of bone proliferation until six months following frac-

ture. Ultimately firm union resulted, and function of the arm was good.

In cases where there is no displacement of fragments Phemister advocates the use of simple splint grafts laid across the fracture line and held in place by suturing of the soft parts. He also uses this method in cases where there has been infection, and he approaches the site of fracture from the opposite side to that in which the infection was last active.

In exposing the site of non-union, all dense fibrous tissue should be removed. It will be found to be densely adherent to the ends of the bone fragments. It is also very important that the marrow cavity of each fragment should be opened.

In cases where infection has played a part operation should be deferred for a period of at least two months and preferably six months after complete healing of the skin wound. If operated too early some latent focus of infection may be flared up, resulting in death of the graft. These cases should be subjected to a course of heavy massage and infra-red exposure for a period of 10 days prior to operation. If there is no signs of recurrence of infection is safe.

The fate of the bone graft is still a debated question. Some claim that the graft merely acts as a bridge and takes no active part in osteogenesis. Albee is of the opinion that the graft survives. Recent experimental work tends to confirm this belief. Of particular interest is the work of Davison and Kraft in which they transplanted bone from dogs who had been fed on a diet containing madder root dye. This substance colors developing bone red, so that if fed to puppies for a variable period all the bones will be colored. If the bone dies it gives up the red dye. In their experiments where the red bone was transplanted to beds prepared in the skull of an animal not receiving the dye, the red color of the graft persisted, showing that there had been no necrosis in the graft, but that primary union had occurred.

In conclusion let me again stress the fact that non-union or delayed union may be prevented in a large percentage of cases if careful attention is given to all details of the early treatment of fractures.

DISCUSSION.

Dr. Isidore Cohn (New Orleans): The first thing which ought to be emphasized is that too frequent attempts at reduction prevent union, and this practice should be avoided. We ought to treat fractures, not roentgenograms, and that is what many are doing. Peterson has stated that the product of the calcium and phosphorus in the blood plays an important role in determining whether union will occur. Speed has shown experimentally that this conclusion is not justified. There is an increase in these elements immediately after injury, and the increase is undoubtedly maintained until normal healing occurs, but the product has nothing to do with the result. The question of the absorption of dyes was revived by Barney Brooks 12 or 15 years ago. This idea of the absorption of dyestuffs by growing bone originated with Duhamel (1739) nearly 200 years ago. After feeding animals food soaked in madden he found that only the new bone showed evidence of its absorption.

If open reduction is done, some form of internal splinting must be done also. We speak glibly of bone operations, but they are major surgical procedures, and ought to be so regarded. Infection or the smallest movement at the site of the fracture will invalidate the whole operation.

The interposition of the soft parts and the formation of cartilage over the ends of the bone will prevent union, no matter how elaborate the manipulations are that are undertaken to destroy it. Nothing but operation helps such a case. Impaction is a rather potent source of non-union, especially in the aged, and I cannot accept Cotton's claims for the good results of artificial impaction. Impaction interferes with the blood supply, which is already none too good at the head of the femur, for instance, and I cannot see how it can do anything but prevent union.

Dr. E. D. Martin (New Orleans): Dr. Cohn has discussed this question from the theoretic side, so I shall show only the practical. My own opinion is that the bone graft not only acts as a splint but that it furnishes actual pabulum from which the old bone is fed. An old technic was actually to tear the ends of the bone, and I have done it many times with excellent results; it seems to stir up new bone production.

Non-union is due in nearly 100 per cent of all cases to improper placing of the bones. If you want union, you must put the bones in posi-

tion and hold them in position long enough for it to take place. In forty years of practice I have never had a case of non-union because I was early taught the importance of holding fractures in place. We did not have the roentgenogram in those early days and we had some very poor results, but we usually got union. Syphilis will prevent union, but so will any other disease; it is simply a question of lowered vitality and not the effect of the specific disease.

With the roentgen ray and with the improved technic of today we can get away from plaster and I am glad of it. I rarely use it any more, even in fractures of the femur, and when I do use it at all, it is merely as a posterior splint. Use a bone plate if necessary, screw it carefully into position with long enough screws, but don't use plaster.

The younger the patient is, the better the chance of union, no matter how the fracture is set. I saw a child yesterday with a lateral separation of at least half an inch, but callus had been thrown out and union was perfect. Contact is not necessary.

Most men do not appreciate the importance of a correct technic in plating or wiring bones. It can't be learned from a textbook. When you put a foreign body in the bone, you must put it there so firmly that it is going to remain in place. If you use the wrong kind of screws or put them in incorrectly, they will not hold, and an abscess of the medulla and necrosis is not an unusual result. No operation requires more skill and experience than this variety of plating or wiring the bone in cases of non-union.

Dr. P. A. McIlhenny, (New Orleans): Dr. Battalora has mentioned ligation of the veins to increase the formation of calcium. When Bier was developing his method of active and passive hyperemia in 1903 he published some experiments in regard to the calcium increase which he was able to achieve. He used passive hyperemia for the fracture of one extremity, the ordinary splint for the other one, and there was no question but that union occurred more promptly on the first side because the venous flow was partially occluded by the elastic constriction, and callus formed more rapidly.

A bone which is put up in a faulty position with inadequate support had better be left united. I have no hesitancy in making the dogmatic statement that anybody who undertakes to do bone surgery must be a good carpenter or cabinet-maker, for the same sort of dexterity is required. Moreover, when the fracture has once been set and external fixation secured, let the part alone, don't look at it every one in a while to see that infection isn't developing. We should be certain that infection is not present before we

begin to operate. I cannot agree with Dr. Cohn in regard to bone impactions. I don't believe they should ever be broken up. They may possibly interfere with the blood supply, but they also serve as a splint, and I never saw an impacted fracture which was followed by osteomyelitis or death of the part.

Dr. Guy A. Caldwell, (Shreveport): I quite agree with all that has been said relative to complete reduction at the time of the fracture. A good reduction plus adequate fixation of the part afterwards, will do much toward eliminating non-union in all cases.

I am frequently surprised to find patients referred with the idea that they can be operated on even while their wounds are still draining. It is perfectly futile to attempt correction of non-union in the presence of infection. The wound must have been healed at least two months, and preferably much longer, before considering operation.

We recognize osteoporosis as militating against union and we should certainly eliminate it as far as possible by waiting for complete healing and restoration of proper circulation in the part, especially if a bone grafting operation is being considered. The patient's limb may be put in some sort of brace or apparatus which makes movement possible, so that the blood supply may be restored as much as possible by use for several months. I have operated on a number of these cases in which previous attempts by competent surgeons had failed. I succeeded, not because I am a better surgeon, but because the factor of delay and use of the injured member had given me an advantage which they did not possess.

The scar cannot be ignored. It should be well healed, the circulation should be good, and the underlying tissue soft. If there is a large, dense scar it is better to excise the scar, remove the fibrous tissue interposed between the bones, cover with a skin graft and permit healing before attempting the bone grafting.

Dr. N. H. Polmer (New Orleans): Laying aside local causes, assuming that there is the proper alignment of the fragments and correct immobilization, we still see cases in which union is delayed, and I rise to point out a valuable adjunct to surgery. It has been shown that during the period of bony growth, at the time when the epiphyses are ossified, there is a large amount of calcium and phosphorus in the blood serum, more so than at any other time. Moreover, Tynsdale and Harris in 1922 showed that after fractures there was always an increased production of these substances, their work being done experimentally on dogs. It has therefore been the practice of many surgeons in cases of delayed union to try to increase the calcium production in the blood by the administration of calcium, cod liver oil and viosterol. Ultra-violet irradiation over the entire body has actually the same effect as the ingestion of these substances and is as nearly a specific treatment as we can hope to arrive at. Hess and many others have shown that irradiation with the air-cooled violet lamp is followed by an increased production of calcium and phosphorus, and by clinical and radiologic evidence of healing. Locally, we can increase the circulation by hyperemia with radiant light and heat or diathermy.

Dr. Muir Bradburn (New Orleans): In reviewing the fractures we have had in our service for the last twelve months, I find 15 cases of non-union, 3 of the femur, 1 of the ulna, 7 of the tibia, 1 of the humerus and 1 of the internal malleolus. We have not found it necessary to make of bone grafting the major procedure it is so frequently considered. We did it in nine of these cases and we had perfect union in all nine. We failed in one case on an old man. In one case of non-union of the femur, instead of doing a sliding graft, we made a two-stage operation of it. In the first step we merely put the fracture in position with a Lane plate, and after sufficient fibrous union had occurred, we applied a graft. In other cases we used either a sliding graft or the usual type, and our results were entirely satisfactory.

NEW ORLEANS

Medical and Surgical Journal

Established 1844

Published by the Louisiana State Medical Society under the jurisdiction of the following named Journal Committee:

- S. C. Barrow, M. D., *Ex-Officio*
 For one year: W. H. Seemann, M. D.,
 Randolph Lyons, M. D., Secretary
 For two years: John A. Lanford, M. D.,
 For three years: S. M. Blackshear, M. D.,
 H. W. Kostmayer, M. D., Chairman.

EDITORIAL STAFF

- John H. Musser, M. D. *Editor-in-Chief*
 Leon S. Lippincott, M. D. *Editor*
 Willard R. Wirth, M. D. *Editor*
 H. Theodore Simon, M. D. *Associate Editor*
 G. C. Anderson, M. D. *Associate Editor*
 Jacob S. Ullman, M. D. *Associate Editor*
 D. W. Jones, M. D. *Associate Editor*

COLLABORATORS—COUNCILORS

For Louisiana

For Mississippi

- | | |
|----------------------------|-------------------------|
| H. E. Bernadas, M. D. | J. W. Lucas, M. D. |
| Daniel N. Silverman, M. D. | L. L. Minor, M. D. |
| C. C. DeGravelles, M. D. | M. W. Robertson, M. D. |
| J. B. Benton, M. D. | Thomas J. Brown, M. D. |
| C. P. Gray, M. D. | Willie H. Watson, M. D. |
| J. H. Slaughter, M. D. | W. G. Gill, M. D. |
| D. C. Iles, M. D. | Jos. E. Green, M. D. |
| J. H. Landrum, M. D. | J. W. D. Dicks, M. D. |
| | D. J. Williams, M. D. |

Paul T. Talbot, M. D. *General Manager*
 1430 Tulane Avenue

SUBSCRIPTION TERMS: \$5.00 per year in advance, postage paid, for the United States; \$5.50 per year for all foreign countries belonging to the Postal Union.

News material for publication should be received not later than the twentieth of the month preceding publication. Orders for reprints must be sent in duplicate when returning galley proof.

THE JOURNAL does not hold itself responsible for statements made by any contributor.

Manuscripts should be addressed to the Editor, 1430 Tulane Avenue, New Orleans, La.

THE AMERICAN MEDICAL ASSOCIATION MEETING.

Eleven years ago the American Medical Association met in New Orleans. The approaching meeting which will occur within the next week will be the fifth time that the organization has met in the metropolis of the South. Each of the meetings that has been held in New Orleans has been characterized by a splendid presentation of medical subjects, and usually has been associated with some outstanding contribution to some one or another phase of medicine. The present meeting, judging from the advanced program, seems likely to be the equal at

least and possibly will surpass any previous meeting. Of outstanding interest to most physicians undoubtedly will be the symposium on economic problems which will be participated in by men who are well acquainted with some of the enigma of practice. The scientific exhibit alone is a demonstration of the advancement in medicine, at which a physician could spend three or four days without attending the other sessions just to learn and to see what is being done nowadays in medical advancement.

Here, we, the physicians of Louisiana and Mississippi, have at our very door an outstanding distinguished group of physicians who will give clinics, public demonstrations, and discussions on many and varied features of medicine. Here will be an unsurpassed scientific exhibit, and here will be other features, the sum total which will make up the greatest medical meeting in this country.

Again we appeal to physicians in our two States to whom this Journal goes, not to mention those of the other surrounding States, to drop everything and to attend this annual gathering of American physicians. The opportunity is so wonderful that it seems almost ridiculous to urge physicians to come to the meeting. Nevertheless, there are a few men who on various pretexts will pass up the chance of participating in the meeting. Do not let anything come up to keep you away; get to the meeting and stay there, three, four or five days.

MEDICAL ECONOMICS.

In spite of the complaints that the laity express regarding the lack of medical attention for people in rural sections, the average doctor in communities of any size realizes and appreciates fully that he could do more than he is doing, and that the number of doctors is more than adequate for the care of the sick, except possibly in sparsely settled rural districts. In the larger communities the supply is not only ade-

quate, but there is an over abundance of physicians so that competition becomes keen, and certain practices often bordering on the unethical are followed by these doctors not in organized medicine in order that the physician may at least make a living. It is conceded that the medical profession is over crowded in many places, and that there are too many physicians in most communities. However, our situation is not nearly so serious as it is among some of the professions allied to medicine. Witness the large number of nurses that are being turned out everywhere by hospitals throughout the country. Startling revelation of conditions is given by a pamphlet from the American Nurses Association, which shows that in a group of 42 cities the average nurse will have no more than 149 days of employment in the year. In some cities over crowding certainly is giving the nursing leaders great concern. In one state, whereas in 1900 there was one trained nurse for something over every 5,000 population, in 1930 there is one for every 349. The pharmacists are equally over abundant. The Committee on the Costs of Medical Care states that no more than 10,000 pharmacists will be required to fill the 165,000,000 physicians' prescriptions annually compounded, whereas actually there are 115,000 registered pharmacists. Fortunately, the pharmacist is able to relegate the compounding of prescriptions to a minor role; most of his time is spent in retailing drugs, toilet articles, and whatever it is that drug stores sell. Only approximately one-quarter of the \$715,000,000 spent for medicines in the United States is prescribed by doctors.

All these figures and these data excite apprehension. In the few countries where the medical profession and the allied branches are over crowded the practice of medicine is on an extremely low plane. If the United States continues to send out doctors, pharmacists, and nurses each year by the thousands, the future of the neophyte physician,

pharmacist or nurse does not seem particularly bright.

SERUM PROTEINS IN HEART DISEASE.

Although Starling, nearly forty years ago, called attention to the importance of the osmotic pressure of non-diffusible colloids, principally serum proteins, in the interplay of fluid between the tissues and the blood stream, it is only in the last few years that really serious attention has been paid to the importance of loss of serum proteins in the production of edema. Outstanding examples of edema of this kind are seen in famine edema and nephrosis, but undoubtedly in many other pathological disturbances diminution of serum protein is responsible in part or wholly for the production of edema. In congestive heart failure various factors are at play to produce edema. Increased capillary pressure and increased capillary permeability as a result of anoxemia are certainly two factors of primary importance, but in a recent study by Payne and Peters* it is shown that a minor but nevertheless distinctly important accessory in the edema of congestive failure is the loss of serum protein, or at least a hypolabumemia. The loss of albumin from the blood stream might be ascribed to several factors; for example, a certain relatively small amount of protein becomes useless for body needs when it escapes into an effusion; an inconsiderable loss occurs as a result of albuminuria, but the investigation of these two workers calls attention to an undoubted extremely important contributory factor to explain serum albumin deficit and one which can be in most instances successfully managed by the physician. This particular factor is malnutrition so that in certain instances it is possible to prevent or correct the serum albumin deficiency that occurs in

*Payne, Sheldon A. and Peters, John P.: The plasma proteins in relation to blood hydration. *Jour. of Clin. Invest.*, 11: 103, 1932.

congestive failure. It is a common practice to restrict the diet, and particularly protein in the diet, when heart failure occurs. Payne and Peters realize that under certain conditions marked anorexia and nausea as a result of gastric passive congestive or possibly as a result of drug administration may make it extremely difficult to feed properly the cardiac patient, but in a great majority of instances proper types of foods, including generous quantities of protein as well as sufficient calories, may be given in

such a way as not to put too much strain on the digestive apparatus of even an old arteriosclerotic patient with edema. This diet can be made appetizing and stimulating to the gustatory senses without an excess of salt or fluid, and at the same time be capable of supplying the protein deficiency so that one of the complications of heart failure may be controlled reasonably adequately. Heart failure is a wasting condition and should be treated as such.

HOSPITAL STAFF TRANSACTIONS

FRENCH HOSPITAL.

A regular meeting of the French Hospital Staff was called to order Thursday, April 14, 1932, Dr. H. B. Alsbrook presiding. The minutes of the last meeting were read and approved. The secretary read the report of discharges for the month of March 1932. There were only three deaths during the previous month and these were relatively unimportant.

Dr. Alsbrook then presented Dr. Charles J. Broom who spoke on calcium therapy. The use of calcium is not limited to rickets but is also given in bronchial asthma, maxillary sinusitis, tuberculosis and patients who show a prolonged bleeding and coagulation time. In 1929 his attention was called to dicalciumphosphate. Through numerous experiments with rats this product showed: (1). That calcium in dicalciumphosphate is utilized 70 percent more efficiently than when given in citrates or carbonates. (2) That dicalciumphosphate therapy results in the prevention and cure of rickets, that is, it raises or maintains the minimum 40 per cent of bone ash that the body demands. (3) It is more soluble in water or in the amount of HCl found in the stomach than other salts. Dr. Bloom's work is of a highly scientific character and is altogether thorough as his experiments carried out on rats, sheep, and children all show the same fine results.

The chairman then announced that the next staff meeting would be held on the third Thursday of May instead of the second Thursday so as not to conflict with any function of the A. M. A. Convention.

Cuthbert J. Brown, M. D.

SURGICAL STAFF OF CHARITY HOSPITAL.

The Surgical Staff of Charity Hospital held its regular monthly meeting on April 20, at 8:00 P. M., in the Nurses Auditorium. Fifty-seven members were present. The minutes of the previous meeting were omitted. There were no com-

mittee reports heard and there was nothing to consider under new, old, or unfinished business. The meeting then passed to the scientific session, and Dr. Mattingly presented a case of echinococcus cysts of the liver, which was discussed by Drs. Maes and Tripoli. Dr. Von Haam from the Pathological Department then demonstrated autopsy specimens from a series of cases showing postoperative complications of the gastro-intestinal tract. These proved of much interest, and were discussed by Drs. Maes and Danna. It was moved and passed that the next meeting consist of a symposium on thyroid diseases with especial reference to treatment.

There being no further business the meeting adjourned.

G. C. Anderson, M. D.

CHARITY HOSPITAL MEDICAL STAFF MEETING APRIL 19, 1932.

The regular monthly meeting of the Medical Staff was held on this date, Dr. Oscar Bethea presiding in the absence of Dr. Durel.

Dr. I. Robbins presented two instructive cardiac cases. The first of these, a colored male, aged 33 years had been diagnosed as true organic mitral regurgitation with congestive heart failure and syphilitic hepatitis. There were several interesting phases of the case suggested by Dr. Robbins and a discussion of some of the diagnostic possibilities. The patient had been admitted to the hospital January 13, 1932, with a history of a gradually developing edema of the ankles beginning about one year previously. The edema had spread up the lower extremities, and later ascites and edema of the eyelids developed. He had lost about 20 pounds during that year. There were no other outstanding symptoms. The past history showed no acute infectious diseases and no venereal diseases. Upon physical examination the essential positive points noted were as

follows: The temperature was 99.2°, blood pressure 130-90. There was marked oral sepsis. There were subcrepitant and sonorous rales over both lungs. The P. M. I. was in the sixth interspace, 13 cm. from the mid-line. There was a systolic thrill over the apex and a systolic murmur at the mitral area, and heard diffusely over the precordium. The abdomen was markedly distended with fluid. The liver was enlarged several fingers' breadth below the costal margin, the edge being sharp and firm. The lower extremities showed slight edema. The Wassermann reaction was strongly positive. The blood count was within normal limits, as was also the blood chemistry. Urine examinations showed a trace of albumen, and hyaline and granular casts. The phenolsulphonphthalein test was 75 per cent in two hours. Roentgenogram of the chest showed an enlarged heart. Several paracenteses had been done, as much as 3500 cc. of serous fluid having been removed on one occasion. The question for consideration was whether the enlarged liver was due to a syphilitic hepatitis or whether its enlargement was produced by chronic passive congestion due to the cardiac decompensation. The ascites seemed to be out of all proportion to the rest of the cardiac symptoms. Antiluetic therapy had been tried with apparently no effect upon the size of the liver. The mitral lesion, apparently a true organic mitral regurgitation, one of the most unusual of valve lesions, was present in spite of the absence of any etiologic factors in the past history. The conjecture as to the relationship of the syphilis and the mitral lesion was also raised.

The second case shown by Dr. Robbins was equally unusual. This was a case of mitral stenosis in a young negro male. He presented a presystolic thrill over the mitral area, and a presystolic mitral murmur. At intervals, a third heart sound had been heard. There was no evidence of nephritis. There was also a definite history of childhood "heart trouble", and the boy had been admitted only a few days after the left knee and ankle had been swollen and tender. The diagnosis of rheumatic mitral stenosis had been made.

Dr. Chaille Jamison discussed these cases, commenting upon the unusual opportunity offered the staff of seeing two such infrequent valvular lesions in the negro on one occasion. He stressed the traditional rarity of mitral valve lesions in the negro, and the uncommon occurrence of rheumatic fever in that race.

Several neurological patients were then shown by Dr. Henry Daspit. First, two white brothers, aged 7 and 11 years, who were mentally defective and were pellagrins. He presented them to consider the relationship between mental de-

ficiency and pellagra, and because of the dietetic and familial histories. Both of these boys developed pellagra at the age of 13 months, after being weaned, and had had pellagra every spring since. This occurred in spite of the fact that they lived on a truck farm and had received a very full, well balanced diet. Neither of these children had developed mentally beyond the age of 3 years. Their father had had pellagra, as had also several relatives. There had been eight children. Two children had died of pellagra at about the age of three years, one child was a deaf mute, one child had died of birth trauma due to forceps delivery and two other children were normal. Dr. Daspit discussed the suggested redispotion of psychotic individuals to develop pellagra especially under institutional care. He also raised the question as to whether the early pellagra had been in any way responsible for the mental retardation, and whether there might not be some common hereditary metabolic deficiency responsible for both the pellagra and the mental retardation; especially in view of the unusual family history. Dr. Love, in discussing the cases, offered his opinion that diet was of very little importance in the etiology of pellagra, and was certainly in his experience not the sole factor. He quoted some investigative work which had suggested the frequency of pellagra in regions where there was fresh running water and sand. These authors had also nominated the sand fly as an intermediary host. At least 50 per cent of the cases coming under Dr. Love's observation had been from such regions, and all knew what a sand fly was and had been bitten by it on many occasions. Dr. Jamison agreed with Dr. Love's observations and stated that he too thought pellagra endemic, with the occurrence of epidemics precipitated by unknown factors.

The next case shown by Dr. Daspit was a white male, aged 50 years, who had been admitted to the hospital because of weakness of his gait, paresthesias, vomiting, sore mouth and diarrhea. Four weeks prior to his admission he had been suddenly chilled and exposed and had developed a quadriplegia with definite polyneuritis. He was considered to be a case of multiple neuritis without cranial involvement, probably beri-beri. His past history was irrelevant, and there was no history of alcoholism, lead or arsenic poisoning. He had, however, been on quite an inadequate, unbalanced diet. Blood and spinal fluid Wassermann reactions were negative, as were also all agglutination tests. There was no clinical evidence of myocardial involvement except for slight dyspnea following prolonged talking. There was no edema. The electrocardiogram showed no evidence of myocardial diseases. The gastric analysis showed free H Cl 26, total

acid 55. There was a slight secondary anemia. He had been absolutely bed ridden, unable to feed himself or even turn over. The diagnosis of beri-beri of the dry type seemed well established. Dr. Turner stated that Kieffer's work tended to show that the controlling factor as to whether beri-beri was to be of the wet or dry type, i. e. whether or not there was heart failure present, was the presence or absence of a disabling neuritis. When the neuritis disabled the individual there was no evidence of cardiac decompensation, therefore the dry type, because of the rest. Their work showed definitely however, that there was evidence of heart damage in both instances. Dr. Cazanavette complimented Dr. Daspit upon the interesting presentation.

Another patient shown by Dr. Daspit was a white male, 41 years of age, who had been admitted to the Charity Hospital complaining of a dull aching pain in the epigastrium which had begun about 5 or 6 weeks previous. This pain had lasted for about three days and had recurred about one week later and lasted until his admittance. This pain usually appeared about 30 minutes after eating and lasted for about two hours. Through this interval he also complained of vomiting after meals and the patient had lost approximately 25 pounds during the previous month.

The past history showed that he had had a penile sore 14 years previously, and four attacks of gonorrhea, the last attack about 14 years ago. His spinal fluid gave a strongly positive Wassermann, also a luetic curve though the blood Wassermann was negative. Gastric analysis showed free H Cl O, total acid 10. His urine showed no abnormalities. This patient was considered from a neurological standpoint for the possible diagnosis of gastric crises. His pupils reacted sluggishly to light, there was no Romberg, and knee jerks were present. Gastro-intestinal series showed a definite pre-pyloric filling defect. Dr. Daspit's opinion was that this individual had not had gastric crises but that his symptoms were probably due to organic gastric pathology. He raised the question as to the possibility of this being syphilis of the stomach. The problem was whether this individual should have rigorous antiluetic therapy or an exploratory laparotomy. Dr. Turned mentioned the fact that while potassium iodide by mouth will prove irritating to gastric ulcer, it usually relieves the symptoms in gumma of the stomach. He suggested the possibility of the use of the drug as a test in the diagnosis of syphilis of the stomach. Dr. Barton spoke on his experience in the use of potassium iodide and stated that this patient had received the drug without any ill effects. He thought this patient should have an exploratory laparotomy.

Dr. Fenno however, suggested antiluetic therapy first, surgery being reserved after this procedure failed to produce beneficial results.

Dr. Jamison showed a 16 year old colored male who had been born in Charity Hospital. This was his fourth admission to the hospital. His birth had been a normal one. In 1923 he returned with a complaint of not being able to breath well and his tonsil and adenoids were removed. At that time the pre-operative examination showed no evidence of a cardiac disease. On this admittance he gave a history of previous good health but had been having difficulty for the previous four months at which time he had nearly drowned. Since that time he had been complaining of dyspnea, exhaustion and a chronic cough. He showed a cyanosis of the nail beds and the mucous membranes of the mouth. His heart showed some enlargement, especially to the right. There was a loud persistent systolic murmur over the second and third intercostal spaces on the left. The pulmonic second sound was accentuated. There was no anemia, polycythemia or clubbing of the fingers. The suggested diagnosis was pulmonary stenosis, probably congenital. Electrocardiogram showed an extreme right ventricular predominance, $T^3 \pm P^3$ inverted. Blood culture had been negative, also the blood Wassermann. Because of a slight fever bacterial endocarditis had been considered. Roentgenogram showed an enlarged cardiac shadow, and a suggestion of some enlargement of the right heart. Dr. Jamison stated that while this case lacked many of the typical signs of pulmonary stenosis he thought that this diagnosis was the most probable one. Dr. Ashman discussed the electrocardiogram, stating that the normal P waves of the tracing favored the diagnosis of pulmonary stenosis rather than mitral stenosis, even though the electrocardiographic findings were compatible with both conditions. Dr. Hull discussed the mechanism of production of cyanosis. Dr. Cannon described a case with patent foramen ovale which had lived for 40 years and had died an accidental death. Dr. de la Houssaye stated that there are many cases of congenital heart disease occurring without cyanosis. Dr. Jamison stated that it was usual for two or more cardiac anomalies to appear together. Also, that a patent foramen ovale was not very serious and caused little cardiac embarrassment.

Following the presentation of these cases the Secretary read resumes of the clinical and autopsy finds in two cases. One was a case of pernicious anemia, the other probably acute yellow atrophy of the liver.

A motion was then made and seconded that the next meeting of the Section be dispensed with, after which the meeting adjourned.

Willard R. Wirth, M. D.

HOTEL DIEU.

The Hotel Dieu Staff met on March 21, 1932, with thirty-five members present. The meeting was called to order by the President, Dr. Joseph A. Danna, with the Secretary, Dr. Julius E. Isaacson, at the desk.

As the first feature of the scientific program, Dr. J. W. Cirino presented a case of pneumothorax associated with pyothorax in a girl baby aged eight months, which began with whooping cough. The child has been hospitalized since December, 1931, the temperature falling after each aspiration and then rising again. Although the child was at the time still in the hospital, there was a good deal of improvement shown. It was intended to clear up a possible lesion in the kidney and in the pleura. Drs. John Signorelli and Joseph A. Danna were associated in this case. Dr. Danna twice aspirated when the temperature had risen, indicating pus, but the second time he could find no fluid, although the needle touched the bottom of the cavity. He believes there is another condition present. Dr. Signorelli explained that the long duration of the illness had produced pathology in the pleura itself, and that the urine showed many cells, particularly hyaline. He laid stress on the extreme youth of the patient and the fact that here a pyothorax is associated with the pneumothorax.

Dr. Louis Levy described his method of treating pyothorax by inserting, through a small incision in the pleura, a tube packed tightly with gauze to keep air out of the cavity.

Drs. Joseph A. Danna and Lucien Fortier presented a case of giant cell sarcoma of the upper end of the fibula (non-malignant). Surgery, which ordinarily is entirely safe and simple for non-recurring, non-metastasizing sarcoma, was not resorted to because of the danger of injury to the peroneal nerve supplying the extensor muscles. The patient was receiving radiation treatment, and the tumor was expected to shrink so that it might be removed surgically, if necessary, without danger. Dr. A. Anderson discussed the possibility of surgery without injury to the nerve, by approaching it from above and drawing it to one side while the tumor was removed, this being the procedure intended by Dr. Danna.

Dr. S. Chaillé Jamison presented a paper on aortic regurgitation, touching its history, its causes, its distinguishing marks, treatment (preventive and otherwise), incidence and prognosis. Dr. R. S. Unsworth inquired as to the effect on a patient with aortic regurgitation of the extreme repeated heat used in the treatment of late syphilis. Dr. A. de la Houssaye told of the experience of Dr. John L. Moss who followed up, after thirty years, several cases of heart disease originally treated in childhood. In conjunction with the angina phase, Dr. Maurice Couret stated he believes angina to be a nervous phenomena rather

than acute pathology in the heart muscle. He cited the fact that in taking blood for Wassermann, the white man (known to be most susceptible to angina) will faint most often, and the black man (least susceptible to angina) will faint least often. Dr. J. A. Danna expressed a desire to hear more about the pericardial side of syphilitic "carditis." Dr. Jamison closed the discussion by describing the symptoms of heart failure.

The effect of pyretotherapy on patients with aortic regurgitation, he stated, was no different in the treated and in the untreated cases. As to angina, he explained that obliteration occurs almost always in the first few mms. of the course of the coronary artery as it passes through the walls of the aorta. The process advances downward and if the coronary arteries are slowly closed, thrombosis takes place; but the attack of angina does not occur providing the closure is slow. Pericarditis, he said, is not known except in rheumatic heart disease. Obliterative forms may be helped, but the obliteration takes place in early childhood and the patients are not likely to survive. Electrocardiography has been of great negative value and has helped in study, but its practical value is almost nil.

An Executive Session followed the scientific meeting.

TOURO INFIRMARY STAFF MEETING.

The regular clinical meeting of the Medical Staff of Touro Infirmary was held Wednesday, April 13, 1932, with Dr. Urban Maes presiding.

Drs. Saiewitz and Hava presented a case of multiple fractures of the mandible. The patient, a white female, was first seen September 22, 1932, following an automobile accident two days previously. At that time she was very ill, her face was swollen over the left side extending down into the neck, due to a cellulitis. Her temperature was 102.2°. She was dehydrated and her urine showed a 3 plus acetone reaction. A roentgenogram made the following day showed a fracture of the mandible in the ascending ramus on the right, the condyle being broken off, and the fracture line entering the sigmoid notch. There was also a fracture approximately at the symphysis menti and a third fracture on the left side just posterior to the posterior molar. There was considerable displacement of the fracture. The fracture on the left side and at the symphysis were comminuted and communicated with the mouth cavity. Both were infected. On September 22, under a general anesthetic, the third left lower molar was extracted as it had been broken off. A plaster boot was put on each foot for fractures here. The next day, under another anesthetic, wiring ligatures were used on the right and left upper and lower first molars and second bicuspsids. The wiring was crossed. The

oral sepsis and infection was treated with irrigations of saline and hydrogen peroxide. Further examination showed that all the teeth were vital. On October 10, the temporary wiring was replaced by permanent wiring. On October 13, Dr. Hava decided that better apposition might be secured and the old wiring was removed and replaced by intermaxillary wiring, with the addition of one layer of an Esmarck bandage to produce pressure at the site of the fracture. There followed an interval with discharge of pus into the mouth on the left side and a discharge of several small sequestrae through the mouth. From November 17 through November 25 Dr. Hava began to loosen the wires and then removed them. Improvement had been continuous since and the patient was able to move her jaw and chew soft food. No attempt was made to reduce the fracture of the ascending ramus on the right side. It was decided to leave the fracture as it was and to do what was necessary at a later day.

Dr. B. Efron discussed four cases of contact dermatitis. These four cases had allergic skin manifestations due respectively to flannelette, cotton, wheat, and a certain weed. The individual sensitive to flannelette had a dermatitis due to the wearing of flannelette pajamas. A small piece of flannelette placed against the boy's skin produced an eruption locally similar to the one over his body. This case was treated by substituting silk pajamas for the flannelette ones with complete relief. The individual sensitive to cotton reacted in a similar manner to the cotton from a blanket which was used. The third individual had had swelling of the upper lip and gums which was apparently due to the ingestion of wheat in any form. Elimination of wheat from his diet relieved him entirely of any further angio-neurotic manifestations. The fourth individual was subject to a general dermatitis which was found by tests to be due to a certain species of weed common in the location of his work. A small portion of this weed applied to an area on his back produced an extreme reaction similar in every respect to that which occurred over the rest of his body. An attempt was made to determine whether it was the stalk, leaves or pollen of the weed responsible for the reaction, but application of each produced approximately similar results. This patient was advised to avoid contact with the particular weed by protective coverings of the exposed portions of his body.

A case of spontaneous supracervical amputation of the uterus during labor was then presented by Dr. A. Jacobs. The individual had had several abortions and one normal delivery of a child weighing nine pounds. After being in labor for a considerable length of time with very strong frequent uterine contractions it was found that the dilatation of the cervix was proceeding

very slowly, if at all. After an interval of rest with morphine strong uterine contractions continued to produce no further cervical dilatation, the cervix being thick, rigid, and not dilated. A cesarean section was decided upon and done. At the time of the section the patient's pulse was 80 and regular. The urinary contractions were forceful. Upon opening the abdomen in the low section a trickle of blood was observed and proceeding further the baby and the placenta were found free in the abdomen. The uterus was strongly contracted and had been almost completely amputated from the cervix. The uterus was removed and a live baby secured. Both the patient and the baby made an uneventful recovery. Dr. Jacobs stated that the frequent curettages might have caused a uterine perforation at some time with resulting scar tissue formation and weakening, which may have been responsible for the amputation. Upon examination of the specimen Dr. Lanford had failed to find any such evidence, however. Dr. Jeff Miller, in discussing the case, stated that he did not recall any such case in the literature. He stated that the case was unusual because there had been no cessation of pains. He emphasized the fact that the cessation of pains was not as important a symptom of uterine rupture as the text-books on the subject would lead one to believe. He stated that rupture of the uterus rarely occurred after myometomies or perforations. Cessation of uterine contractions are more common in rupture of the fundus of the uterus than of any other portion. Dr. Walter Levy mentioned the frequency of the occurrence of uterine rupture at the site of Bandl's ring and reiterated the value of the use of adrenalin to relieve the occurrence of Bandl's ring as so often emphasized by Dr. Caire, especially prior to the performance of version and extraction.

Dr. Arthur Caire, Jr., then presented a case of an unusual complication of labor. A white female, aged 27 years, was first seen December 18, 1931; at that time about seven months pregnant. Her physical examinations was negative and up until that time her pregnancy had been uneventful. This was her first pregnancy, having been married slightly over one year. The pelvic measurements were I. S. 22 cm., I. C. 29 cm., I. T., 35 cm., external conjugate 20 cm. Vaginal examination revealed the markedly contracted outlet of a typical funnel type pelvis. At that time a note was made that a cesarean section would probably be needed. The laboratory examinations were within normal limits. On February 27, the patient's membranes ruptured spontaneously and she came to the hospital and was admitted, but she was not in labor. About 5 A. M., February 28, she awakened in labor. About 11 A. M., examinations revealed the cervix two fingers dilated, with a R. O. P. presentation.

A cesarean section was scheduled and performed at 3 P. M. The baby, weighing 9 lb., 14 oz., had evidently been somewhat embarrassed and required strenuous efforts at resuscitation. The patient left the table in good condition. Within 12 hours after the operation the patient's temperature was 104 degrees, with a pulse rate of 140, and respiration of 44. The chest showed no physical signs of pulmonary involvement upon examination. Upon March 1, the abdomen began to become distended in spite of the fact that a duodenal tube had been inserted at operation and gastric lavage had been done frequently since. There was still no signs in the chest. On March 2 the medical consultant found evidence of bronchial pneumonia especially marked on the right side. Temperature fell to a range of 101° to 102°, with respiration from 20 to 30. On the next day, March 4, the patient seemed about the same except for the past 24 hours she had been complaining of great pain in the right anterior chest near the costal margin. A chest plate was made at that time. This roentgenogram showed evidence of a pneumonic process or consolidation at the base of the right lung. There were rales on both sides of the chest, especially posteriorly at the bases. The medical consultant suggested the possibility of multiple infarcts of the lungs at this time. The patient continued complaining of pain on the right side in the axillary line, over the 8-9-10 ribs. There was dullness over this area. On March 5, the patient complained of being very uncomfortable with a marked increase of pain in the chest. The temperature was 99°, pulse 160, respiration 42, blood pressure 105-75. She seemed to be in shock. The pulse were irregular. This lasted for about an hour and the patient seemed to be entirely relieved, and ate a good supper. Several hours later the medical consultant found, for the first time, a systolic murmur at the mitral area, and a diagnosis of endocarditis was made. About three hours later on the same day the patient moved her position, and as she was being helped to move she suddenly threw back her head and a convulsive spasm involving the head and neck muscles and the right arm was noticed which lasted for two minutes, after which she died. When Dr. Caire saw the patient shortly after her death there was still definite spasm and rigidity of the neck, face and right arm. The case was not autopsied, therefore the conclusions were based entirely upon clinical observations. The diagnosis made was multiple pulmonary infarcts, septic endocarditis and cerebral embolism, the later being fatal. Dr. Caire stated that thrombosis and embolism are quite rare conditions. In a series of 5,734 deliveries by Dr. Polak, there were 12 cases of embolism and 30 cases of thrombosis. Five cases of the 12 cases of embolism died, while 2 cases of the 30 cases of thrombosis died. These figures

show that thrombosis occurs must often in obstetrical cases than embolism. Dr. Tyrone, in discussing the case, commented upon the frequency with which gastric and abdominal distention is observed following the delivery of large babies. He thought this probably due to an ileus. Dr. Matas spoke at length on embolism and thrombosis as results of obstetrical and gynecological operations.

A demonstration of the function of the patella, with suggestions for operation after fracture was presented by Dr. E. Denegre Martin. By a number of diagrams on the black board and the use of a very clever model of the knee joint, Dr. Martin clearly showed the function of the patella, and the mechanism of its fracture. He then discussed his recommended open operation with the wiring of the fracture with annealed iron wire. This premitted the patient to be back on his feet again in two weeks. Lantern slides of roentgenograms of cases in which the wire had been allowed to remain permanently in place were shown. Dr. Matas and Dr. Rosen discussed the procedure.

Following this scientific section a copy of the resolutions adopted upon the death of Dr. J. Burney Guthrie was read. The resolutions eulogized the late Dr. Guthrie who had been a very active member of the staff for many years.

Willard R. Wirth, M. D.

VICKSBURG SANITARIUM AND CRAWFORD STREET HOSPITAL.

The regular monthly meeting of the staff of the Vicksburg Sanitarium and Crawford Street Hospital was held on Monday, April 18, at 6:30 p. m. After the business of the staff and reports from the records department and analysis of the work of the hospital, special case reports were made as follows:

1. Transurethral (Cystoscopic) Prostatic Resection (Report of Nine Operations).—Dr. A. Street.

Until recently, male patients suffering from urinary obstruction the result of enlarged prostate had the choice of either suprapubic or perineal prostatectomy, or a life of "catheterism." If the obstruction was from a small fibrous or median bar it was relieved satisfactory by some type of punch operation, usually the Young punch, or the Caulk cautery punch.

In dealing with patients who can be classed as good surgical risks, prostatectomy has seemed entirely satisfactory. However, we are occasionally confronted by a patient with an enlarged obstructing prostate who is such a bad risk that suprapubic or perineal prostatectomy is definitely contraindicated, or can be done with only slight hope of his surviving the operation.

In the fall of 1931 my attention was called to recent advances in transurethral surgical pro-

cedures in the region of the neck of the bladder by the papers of Dr. Joseph McCarthy of New York and of Dr. Davis of Charlotte, North Carolina. The improvement centers about development of high frequency cutting current sufficiently powerful to cut easily in water. Operative cystoscopic equipment had been available especially since Maximilian Stern perfected his resectoscope, which is a cystoscope provided with a loop electrode for cutting tissue within the bladder or urethra with the high frequency cutting current. Dr. McCarthy has adapted a modification of his foroblique panendoscope to this work. In my cases I am using the McCarthy panendoscope, and for generating the cutting current, the McCarthy surgical unit which was developed by Mr. Wappler.

In the past three months I have removed the obstructing portion of the prostate by this cystoscopic method in six cases. Four of the cases were small prostates with middle lobe or median bar obstruction. Two cases were very large so-called adenomatous enlargements. The relief of obstruction has been complete in all of these cases, and just as much so in the cases with very large glands as those with the small ones. In five of the cases post operative period was entirely uneventful. One case suffered considerably from tenesmus in the post-operative period and for some reason would not tolerate the indwelling urethral catheter. I think some of this difficulty was due to poor cooperation on the part of the patient. On this case a perineal cystotomy was done, leaving a large tube drain, for one week. The patient had no further trouble, the fistula was healed in three weeks, and he is urinating normally. One case on admission was completely obstructed and had neglected to have his bladder emptied by catheter often enough to prevent serious damage. He showed extensive general edema, prostration, mental confusion, and nitrogen retention. He was prepared for operation in exactly the same manner as for the usual types of prostatectomy. Catheter was left in the bladder through the urethra for two weeks. By this time the edema had subsided and the patient appeared normal. Analysis showed blood urea normal. Rectal and cystoscopic examination showed a very large prostate which was resected by transurethral method, and followed by uneventful convalescence. The details of this case are cited to emphasize the fact that the treatment of patients with prostatic urinary obstruction and its serious complications does not always resolve itself into a simple procedure, without preliminary preparation and followed by a hospital stay of a week or less. It depends on the problems presented by each individual patient. Some of them can have a small prostatic obstruction

resected without preparation and can be discharged from the hospital after five days.

While the number of cases in this report is too small and the time since operation too short to afford conclusive evidence as to permanent results, the results thus far as satisfactory, are very encouraging and I think justify some enthusiasm. Dr. Davis reports good results in over five hundred cases. Dr. McCarthy reports excellent results, and is so enthusiastic as to predict that the old operation of prostatectomy may become obsolete. In a recent conversation with Dr. Virgil Counsellor of the Mayo Clinic, he stated that forty per cent of prostatic obstruction cases at the clinic are being treated by transurethral resection. The method is being used widely, and in the course of time its indications and contraindications will be established. It may or may not entirely replace suprapubic and perineal prostatectomy.

2. Conservative Treatment of Traumatic Injuries of the Hand.—Dr. J. A. K. Birchett, Jr.

Abstract: Patient—Colored, male, aged 27, married, laborer in compress.

Chief Complaint.—Crushed hand.

History of Chief Complaint.—On January 5 of this year while attempting to tie a bale of compressed cotton, hand was caught between bale and press. Acute pain caused him to cry out for the engineer to let the pressure off the press. Instead of doing this the engineer applied more pressure which caused an extensive crushing wound of his left hand.

Past History.—No previous serious illnesses; no operations; general health has been good. Denies any venereal infection.

Family History.—Father and mother living and well; no tuberculosis or cancer in family. Two brothers and three sisters living well.

Physical Examination.—Young negro male brought into hospital with evidence of moderate shock because of severe crushing of left hand, occurring approximately four hours before. Had received first aid at time of injury. Dressing was saturated with blood. Soft parts had been stripped from the metacarpals and phalanges and there were comminuted fractures of all metacarpals with laceration of the tendons. It was evident that amputation above the wrist would possibly be necessary this depending upon the amount of impairment of blood supply.

Circulatory system was normal except for increase of heart rate due to loss of blood volume. There was no evidence of any respiratory infection.

Procedure.—Under a general anesthetic for complete relaxation and to enable detailed examination of the hand, it was deemed advisable to try to save the first two digits of the thumb,

the distal phalanx having been torn from its articulation and forced into the soft tissues of the palm. The little finger was the least injured, the skin being stripped from its surface. The ring finger was fractured in two places and disarticulated from the wrist. It was replaced in normal position and splinted with the little finger after all tabs and fragments of tissue and bone had been removed. The suturing was done with silk worm. The tension was not made abnormally tight to allow for secondary swelling. Two tube drains were placed in the reconstructed palm to take care of any purulent accumulation.

Progress.—We were pleased with the progress of this wound. Very little infection occurred and in ten days healthy granulation tissue was developing. There appeared to be a sequestrum forming in the middle portion of the fourth metacarpal as there was profuse drainage of thick purulent material from this region. A necrotic piece of bone was removed with subsequent clearing up of the discharge. In four weeks we were able to apply our first graft to the grafting surface. At this time one-half of the hand was covered, beginning on the thumb side. All of these grafts were successful. Two weeks later Dr. Walter Johnston grafted the remaining raw surface and had splendid results, all grafts taking. Patient was discharged nine weeks after admission with a much better result than was first expected. Some motion of the thumb and little finger is possible and though the extensor of the ring finger soughed during the process of supuration, this may be replaced by a tendon transplant later. We feel that by being conservative in this case, we have saved a portion of the hand that will be of economic use in later life whereas if we had been too hasty in our early observations and amputated, our present result would have been defeated.

3. Hyperplastic Tuberculosis of the Small Intestine—Two Cases in Children.—Dr. G. C. Jarratt.

Abstract: Patient, white, female, aged 7 years; admitted to hospital March 9, 1932.

Chief Complaint.—Pain in abdomen; fever; nausea and vomiting.

History of Present Illness.—Mother stated that child awoke this morning at 4 o'clock complaining of pain in right lower abdomen. Pain continued; enema given without relief. At 9 A. M. another enema was given followed by a normal stool. Child vomited after enema. On way to hospital complained of pain with least bumping of car. Fever 99.4° F. since onset. No loose stools; no indiscretion of diet. Child had felt well and appeared in excellent health up to onset of symptoms. Mother stated that child had had pain in abdomen transiently for past three or four years.

Past History.—Pertussis a two years; chicken pox one year ago; no other contagion. Toxin-antitoxin mixture followed by positive Schick test; two doses of toxoid with negative Schick test. Vaccinated against smallpox with negative results. Tonsils and adenoids removed at three years of age. No other illnesses except colds and otitis media. Milk supply has never been from tuberculin tested cows.

Family History.—Mother and father living and well; one miscarriage at five months; one other infant 18 months of age living and well. No tuberculosis contact.

Physical Examination.—Temp. 100.4° F.; pulse 120; weight 50½ pounds. Well developed and nourished; not very acutely ill. Nose showed mark redness and swelling with muco-purulent material in right side especially. Teeth had many fillings. Slight tenderness over lower abdomen; not more marked on right than on left. Examination otherwise not remarkable.

Laboratory.—Blood: Leukocytes 29,300; small lymphocytes, 15%, large lymphocytes, 3, large mononuclears, 1, polymorph, neutrophiles, 81; erythrocytes 5,050,000; Hb. 72%; no malaria found. Urine: Negative except for rare fresh red blood cell.

Course and Treatment.—Child put to bed for observation. Soda enema with passage of flatus and small soft stool. Roentgen ray revealed cloudy right antrum; chest negative. Two hours later child began to have pain in lower abdomen and vomited once. Leukocytes 30,600; small lymphocytes, 22%, large lymphocytes, 3, monocytes 1.5, polymorph. neutrophiles 73.5. An exploratory operation was decided upon with an acute appendix in mind.

Operative Report.—McBurney incision. Appendiceal serosa shows acute inflammatory. Much amber fluid in peritoneal cavity; viscera generally reddened. A mass at pelvic brim, located in the wall of small intestine and adjoining mesenteric attachment, indurated. No distention of any portion of intestine. Lymph nodes of mesentery show enlargement, size of buck shot. Appendix removed. Mass returned; abdomen closed without drainage.

Postoperative Diagnosis: Appendicitis, acute; mesenteric lymphadenitis, acute; hyperplastic tuberculosis of intestine.

The mass was not resected because of acute inflammation of peritoneal contents, no obstruction was caused by the mass, and past experience has taught that such lesions apparently heal with no bad results if there be no obstruction, under general treatment for tuberculosis.

For several days child had occasional vomiting spells and was given daily intravenous glucose solution. On third day, there was no vomiting, temperature was normal; blood count and urine

were normal. Mantoux test 1-1000 dilution was negative; 1-100 dilution markedly positive at end of 24 hours.

Pathological report of examination of appendix showed acute and chronic inflammatory. Feces examinations were negative except for occasional pus cells.

Child returned home on tenth day with instructions as to proper diet, especially eggs and milk. Cod liver oil and ultra-violet ray were prescribed. Treatment of sinus advised.

I have since seen the child. In one month she has gained two pounds in weight; there is no further pain in abdomen; stools are normal; and mother states that she seems in better health than for the past year. I have not been able to feel the mass either through abdominal wall or by rectal examination.

Patient.—White, male, age seven years, admitted to hospital October 22, 1929.

Chief Complaint.—Diarrhea; fever; nausea and vomiting; abdominal pain.

Present Illness.—Present attack began more than three weeks ago, with onset of diarrhea, fever, nausea and vomiting and abdominal pain. Was treated by family physician and has improved, but still has too many stools with much mucus; from five to ten times in 24 hours cries and at times screams with acute abdominal pain lasting from one to five minutes. Still has fever, not high; has more pain and more stools if diet is increased. Had been seen in out-patient clinic on October 11, and was given calomel, 1/10 grain, b. i. d., bismuth and belladonna and lime water and soda enemas twice daily. Roentgen ray studies of the gastro-intestinal tract were negative except for visible appendix. Leukocyte count has persistently been above normal, 12,000 to 14,000, with 57 to 75 per cent polymorphonuclears. Urine negative.

Condition has greatly improved under treatment; was able to eat more with less pain and no more frequent or loose stools. Pain still present but intermittent; soreness and tenderness in right lower quadrant persist.

Past History.—No previous serious illnesses. One previous similar attack of diarrhea but much milder.

Family History.—Father, mother, and one sister living and well. No tuberculosis contact.

Physical Examination.—Temp. 98° F; pulse 100. Pale, under-nourished child; appearance of having recently lost weight. Tonsils enlarged; many carious teeth; many small, hard, freely movable nodes in neck. Abdomen shows muscular rigidity and persistent tenderness in right lower quadrant. Marked phimosis. Examination not otherwise remarkable.

Operation.—McBurney incision. Ileum and cecum delivered; appendix showed chronic inflammatory and was removed. The lower six or eight inches of ileum were thickened, red, edematous, and in mesentery overlying this portion were lymph nodes size of small peas to size of large marbles. Considerable amount of clear serous fluid in peritoneal cavity. Nodes extended along aorta as far as could be palpated. Impossible to deliver one of the nodes for diagnosis. Wound closed without drainage. Circumcision done.

Postoperative Diagnosis.—Chronic appendicitis; hyperlastic tuberculosis of intestines; phimosis.

Convalescence was uneventful. Discharged with instructions as to diet, cod liver oil, and sunshine.

Three minute reports of the literature of the month were given by Drs. G. M. Street, A. Street, L. S. Lippincott, J. A. K. Birchett, Jr., L. J. Clark, and G. C. Jarratt.

The meeting closed with a lunch.

Leon S. Lippincott,
Secretary.

STAFF MEETING, VICKSBURG HOSPITAL AND CLINIC, APRIL 7, 1932.

Abstract: Post-influenzal pleural effusion in patient with rheumatic heart disease and syphilis.—Dr. W. G. Weston.

Patient.—B. P., colored, female, married, aged 35; housewife.

Chief Complaint.—Shortness of breath and pain in the right upper quadrant of the abdomen.

Present Illness.—Onset two months ago at which time patient had influenza. Onset with a chill followed by fever. Following this several chilly sensations, but no actual chills. Productive cough, patient coughing up muco-purulent sputum which at times was blood tinged, also complained of generalized aching all over the body and in the joints. Was in bed for two weeks and since that time has failed to gain strength and has felt tired and weak. Has noticed gradual increase in shortness of breath. At the time of admission of hospital patient was compelled to sit up in bed especially at night in order to get breath.

Since onset of present condition has complained of extreme nervousness, being easily excited and also having palpitation of the heart with excitement.

Family History.—Negative.

Respiration; See present illness. Circulation, See above, no edema of the extremities. Palpitation and dyspnea as mentioned above. No precordial pain. G. I. negative. Genito urinary, negative.

Marital: Duration first time two years. Duration second time ten months. One child living

and well. Three dead, all stillbirths. Aborted at 4 months; 5 months and 4 months.

Past History.—Measles during childhood. Typhoid fever at age of 14. No history of malaria. Pneumonia in childhood. Influenza at onset of present illness. None previous.

No history of operations and no history of serious illness.

Menstrual.—Onset at 16. Periods have been more or less irregular. Duration three days. Frequently misses a period. No history of dysmenorrhea. Flooding at times particularly after menstruation has been resumed following an abortion. Some passage of clots. Denies discharge associated with periods or between periods.

Physical Examination.—Height 65 inches. Weight 145 pounds. Temperature on admission 98° F. Pulse 90. Respiration 35. Inspection reveals fairly well developed and nourished female colored adult. Not appearing acutely ill, however, patient is rather markedly dyspneic. Sitting up in bed trying to get breath. Patient appears quite restless and excited. Head of normal size and contour. No areas of tenderness, no bulging or depression noted. Eyes: Pupils are equal and regular. React to light and accommodation. Following dilation of pupils with homatropine, examination of the eye ground reveals some tortuosity of the vessels. Slight nicking of the vessels, so called arterial venous nicking. The discs are clearly outlined and present no abnormality. No evidence of hemorrhage into the retina and no evidence of albuminuric retinitis. Ears: No tenderness, topi or discharge present. Nose: Mucous membranes are red and somewhat injected. There was no deviation nor perforation of the septum. No chronic discharge. Mouth: Dental caries and pyorrhea present. Tonsils are submerged, cryptic and do not appear to be definitely diseased. Neck: There is rather marked prominence, tortuosity and fullness of the veins of the neck bilaterally, also visible pulsation in the neck. Thyroid gland does not appear to be enlarged. It is not nodular. No bruits. Trachea seems to be in the midline and there is no tracheal tug present. Chest: Size and contour of chest normal. Breasts are pendulous. No masses felt in either breast. No retraction of the nipples and no discharge from the nipples. Lungs: Expansion is definitely and rather markedly limited on the right side. Palpation: Tactile fremitus is somewhat increased in the upper portion of the right chest gradually decreasing until there is total absence of tactile fremitus below the inferior angle of the scapula on the right. There is also diminished tactile fremitus in the left base posteriorly. Auscultation: Exaggerated

broncho-vesicular breathing in the right upper chest, also in the left. Diminution in the breath sounds right chest from inferior angle of the scapula down. In the base there is complete absence of the breath sounds, also marked diminution in the extreme left base. Vocal fremitus is also absent over the right base. It is diminished over the left. Flat note from the inferior angle of the scapula downward, right side, posteriorly. The note is absolutely dull or flat. Marked increase in resistance to percussion over this area. Percussion on the left reveals dull note at the extreme left base. Auscultation: Few crepitant rales at both bases which clear up on deep breathing. Heart: Apex beat is seen in sixth interspace 14 c. m. from midsternal line. Palpation: Apex beat felt in sixth interspace, 15 c. m. from the midsternal line. It is forceful in character. No thrills felt. There is definite impulse felt over the precordium. Some movement of the overlying structures with each heart beat. There is considerable enlargement of the heart to the left. The measurements are as follows: Second interspace, 5 cm.; third interspace 7 cm.; fourth, 9 cm.; fifth, 11 cm., and sixth, 14 cm., from midsternal line. Whether this is due to actual enlargement or whether the heart is displaced by the presence of fluid in the right pleural cavity it is difficult to say. The rhythm at the time of admission was regular, interrupted by frequent premature contractions. Heart sounds varying in intensity. There is a definite murmur at the apex, presystolic in type, crescendo in nature, not transmitted. Abdomen: Tenderness in the right upper quadrant on pressure. Liver seems to be slightly enlarged and is definitely tender extending below the costal margin. There is also tenderness in the epigastrium. Kidney and spleen are not palpable. No other masses felt in the abdomen. No rigidity. Genitalia: Orifice normal. No evidence of Bartholinitis. Cervix has stellate lacerations; rather hard. The adenexa revealed no tenderness or masses. Uterus appeared to be somewhat larger than normal. Rectal: No external hemorrhoids. Sphincteric tone is good. No masses felt per rectum. Examination of the extremities reveals no edema or evidence of recent edema. Reflexes are active.

Progress Notes: February 24, 1932. Ophthalmoscopic examination reveals no blurring or choking of the discs. There is no evidence of retinitis or hemorrhage into the retina. The right chest was aspirated yesterday by Dr. W. H. Parsons in the 7th interspace, midscapular line and 39 ounces of cloudy straw colored fluid were obtained. Specific Gravity 1.010. A specimen of the fluid was sent to the laboratory for examination for albumin, cell count, culture and ex-

amination of primary smear. Patient obtained considerable relief from aspiration. Dyspnea is less marked. The fluid intake and output do not show any marked variation, but appear about equal. Other laboratory as follows: Urea Nitrogen 11.2 mg per 100 cc.; Creatinine 1.4 mg per 100 cc. Blood: Red blood count 4,070,000. Hemoglobin 72% Tallqvist. White blood count 6,400; polymorphonuclears 71% (10 band forms). Color index 0.80. Urine: Albumin—1/60 of 1%. Microscopic: Rare hyaline casts. Numerous epithelial cells, few pus cells and numerous leukocytes; some bacilli. Specific gravity 1.028.

Blood Kline and Young: Diagnostic test—4 plus; exclusion test 4-plus. Kahn: 0.05 cc. 4-plus; 0.025 cc. 4-plus; 0.0125 cc. 4-plus.

Final Diagnosis: 1. Post-influenzal pleural effusion right side. (2) (a) Rheumatic heart disease; (b) Cardiac hypertrophy, generalized; mitral stenosis (c) Regular rhythm; (d) Heart compensating at present. (3) Syphilis.

Patient placed on iodides and mercury inunctions and advised to return for observation.

Abstract.—Treatment of Extensive Burns with Special Reference to the Use of Tannic Acid—Case Report—Dr. W. E. Akin.

The literature pertaining to burns with particular reference to the pathology and treatment of extensive burns was reviewed in detail.

The statistics of Beckman with reference to the end result obtained in a series of 114 cases treated with tannic acid and 320 cases treated by other methods were reviewed and comments were made concerning the reduction of mortality from 28 per cent to 15 per cent, it being felt that this reduction was due to the use of tannic acid.

Attention was drawn to the deleterious effect upon the adrenal glands of the toxemia from extensive burns and it was suggested by the essayist that damage to these glands might parallel or exceed the damage to the kidneys.

Patient.—D. M., White, male, aged 39.

Family History.—Irrelevant. Personal History: irrelevant; past history irrelevant; Cardio-Resp. Not remarkable except for double pneumonia in 1924. G. I. negative; G. U. negative.

Chief Complaint.—Burns due to scalding water.

Present Illness.—Onset thirty minutes before admission. Patient at one of the local lumber mills, walked in front of a blow out valve just at the time when the engineer was blowing out the boiler. Scalding water under much pressure was sprayed over the entire body. At the time of the injury, the pain was intense and for five minutes the patient experienced a chilly sensation over the body and was in a semi-comatose condition. He was placed in a car and brought immediately to the hospital. Patient was in acute shock at this time.

Treatment and Progress Notes.—No immediate attempt was made to examine patient. He was undressed and placed in bed. Hot water bottles applied to the body and one-third grain of morphine given in an attempt to react the patient from the severe shock. External heat was then applied and the patient was made fairly comfortable.

Later examination.—Examination confined to inspection of the patient. Patient found to be a male white adult, well developed and well nourished. An anxious expression on the face. Patient still in acute shock. Temperature 96°. Pulse rapid, over 100 in number. Respiration shallow, 20 in number. There were burns covering two-thirds of the body. They ranged from first to third degree burns. The burns extended from the nape of the neck involving the entire back to the calves of the legs. The burns extended on the right arm and the lower one-third of the forearm anteriorly and posteriorly. On the left, the burns extended down to the hands. Minor burns about the hands. Anteriorly, the burns involved the left chest extending about three inches beyond the midline to the right. Both legs anteriorly were burned down to the knees. Scattered areas of first degree burns on the feet. Right chest and right thigh anteriorly being practically the only parts not involved with the exception of the face. Burns about the buttocks and in the left popliteal space was third degree in nature. Third degree burns under the left axillia and about the right elbow. On the back, the burns were first and second degrees. No further examination made at this time.

Patient now fully reacted. After one hour the devitalized skin was carefully removed and the burned areas sprayed every fifteen minutes with tannic acid solution (3 per cent). Patient had been placed on sterile sheets and a heat canopy placed over the body. Eight ounces of fluid offered to the patient each hour. Nurse instructed that the patient was to be made to drink at least eight ounces of fluid per hour for twenty-four hours. After twelve hours the body was covered with a black eschar. As fast as blebs were formed, devitalized skin was peeled away and the areas sprayed with tannic acid. Fluids were forced. About 8000 cc. of fluids per day. Blood transfusions begun on the third day and continued almost daily. A total of fifteen transfusions being given in the first twenty-four days, 350 cc. of citrated blood being the usual amount given. The patient's progress was rather stormy. On the 10th day, there was evidence of pus formation, as exemplified by the extreme toxemia of the patient. The tannic acid was removed as it separated from the edges and S. T. 37 packs were constantly applied. On the 10th day digi-

talization of the patient was done due to the poor condition of the circulatory system. Dry heat in the form of the electric light placed under the canopy was constantly applied. Position changed as often as necessary so that the areas could be dried. S. T. 37 treatment continued and the general care of the patient maintained. Average fluid intake for the first twenty-four days was 9000 cc. Urinary output averaged 3000 cc. Urinalysis showed not over 1/60 of 1 per cent albumin. Sugar-content of the urine averaged from .3 per cent to .5 per cent. Blood chemistry remained normal. The patient recovered after forty-seven days of illness.

General Examination After Recovery.—Patient well developed but emaciated. Weight 122 pounds. Patient has lost forty pounds during the illness. Walks with a slight limp to the left. Eyes: Pupils are markedly dilated, otherwise negative. Nose and mouth negative. Ears and neck negative. Examination of the skin: The skin posteriorly over the areas described on first examination have completely healed over. There is a small area under the left axilla, left hip and left popliteal space which have not entirely healed. The chest is negative except for emaciation. Heart negative. Abdomen negative. Extremities are greatly emaciated. Considerable scarring of the right elbow. Some slight retraction. Extension and flexion, however, normal. There is marked scar formation and contraction in the left popliteal space, extension and flexion being only partial. Several healed boils scattered over the thighs and legs. Reflexes are hyperactive. The patient is highly nervous. There is a fine tremor present. Patient, however, was able to walk out of the clinic. Was advised to return to the clinic for dressing and check up.

Abstract.—Ureteral Transplantation in Children.—Dr. R. C. Cutts.

A series of 60 cases of ureteral transplantation in children was reviewed. This material was studied while a member of the staff of the Mayo Clinic. The indications for surgery the most favorable time at which operation can be done and especially the pre-and post-operative care and complications were reviewed.

Report of the Department of Obstetrics for the year 1931—Dr. I. C. Knox.

A review was made of all cases occurring on this service during the past year. There was no maternal mortality and it was felt that the morbidity was satisfactorily low. Special comment was made relative to the induction of labor in those cases where such procedure was required. In a series of several labor induced by the use of the bag there was neither maternal or fetal mortality and there were no infections.

STAFF MEETING OF THE MISSISSIPPI STATE BAPTIST HOSPITAL, JACKSON, MISS. ANNUAL MEETING.

The regular monthly meeting of the staff of the hospital was held at the hospital on Tuesday, April 5, 1932, and was attended by a good number of the staff. The meeting was started promptly at six-thirty o'clock with a wonderful dinner served by the hospital and very delightfully received by the members present. At the close of the dinner the President of the staff, Dr. Robin Harris called on the superintendent, Rev. Wayne Alliston, who discussed two very important questions, namely, the low cost of maintenance of the hospital with the largest number of patients in the house in twenty months and a new method of urging the staff members to complete unfinished histories in the chart room. This new method was suggested by Dr. H. R. Shands and adopted by the staff of the hospital. Mr. C. A. Palmerlee, director of laboratories, gave a summary of one hundred complete examinations in his department, which was a revelation to the staff in that this series showed a large percentage of tuberculosis, syphilis, and hook worm infestation in adults. Dr. W. B. Dobson followed this with a very interesting case-report of a dermoid cyst in a three year old child, located in the glabella region with a fistula opening about two-thirds distance down the nose from which oily material and occasionally a hair was expressed on pressure of the tumor mass. Operation was done followed by a complete cure. Dr. A. E. Gordin followed this with a case report of a colored male on whom a car of acid phosphate had fallen, burning him severely and crushing three lumbar vertebrae. He was operated upon and the fragments removed and due to the acid burns he was unable to put him in a cast and so was put in traction on a frame. The vertebrae overlapped by one and a half vertebrae then, 1930. Now, two years later, the canal is S-shaped and the lumbar region is shortened by about three inches without paralysis or parasthenia then or now and no disability. The patient was present and the staff evidenced much satisfaction at the case and its outcome.

Immediately following this was the election of officers for the coming year. Dr. H. F. Garrison, the past Secretary, was elected President, Dr. D. W. Jones was elected Vice-President and Dr. Lawrence W. Long was elected Secretary.

Lawrence W. Long, Secretary.

MISSISSIPPI STATE HOSPITAL, FONDREN, MISS.

Obscure Cases of Paresis.—R. B. Zeller, M. D.
The diagnosis of paresis is, as a rule, largely

dependent upon the serological findings. Sometimes, however, we find the clinical picture without the positive serology as well as at times finding a serological case of paresis without the clinical findings.

Unfortunately, the vast majority of the cases of dementia paralytica that present themselves at a state hospital for treatment are so far advanced that the diagnosis is almost immediately obvious. The persistent headaches, change in speech, sluggishness of the pupil in reacting to light, difficulty in thinking or increased forgetfulness have not been early enough recognized by the general practitioner.

Few of us have the opportunity to watch a case of dementia paralytica develop from incipency and note the gradual serological change.

Case Report: Case 1. Colored, male, farmer, aged 32 years. First admission to the Mississippi State Hospital was December, 1920. At that time he was going through a period of excitement. Neurological signs were absent. He proved a very difficult patient to hold and frequently discharged himself only to be returned several months or years later, and on and this account failed to receive sufficient treatment. The serologic findings and treatment were:

December 10, 1920: Blood Wassermann positive with both lipid and cholesterinized antigens. Spinal fluid Wassermann negative; cell count normal. No colloidal gold curve.

December 14, 1921: Blood Wassermann positive with both antigens; Spinal fluid still negative. Neosarsphenamine, 6 intravenous injections of 0.6 grams each.

November 3, 1923: Blood Wassermann negative, Spinal fluid Wassermann negative, cell count normal, colloidal gold 1112200000.

June 25, 1928: Blood Wassermann negative, Spinal fluid Wassermann negative, cells 25, globulin plus, colloidal gold curve 5555430000.

At this time patient presented the symptoms of clinical paresis: speech defect memory impairment, sluggish pupils and disturbed reflexes.

Case 2.—Divorced, white, male, aged 43 years, auto salesman by occupation, admitted to the Mississippi State Hospital, February 15, 1929.

History of having been divorced at ages of 32 and 42. No history of venereal diseases. Seizures beginning a few weeks prior to his admission together with marked irritability, forgetfulness and pseudo-reminiscences occasioned his commitment.

Examination: Blood pressure 132/90, aortitis, contracted and unequal pupils, speech defect and memory impairment. Some ideas slightly grandiose in character were noted.

Serology: Blood Wassermann negative; spinal fluid Wassermann negative; globulin normal; no colloidal gold curve; cells 15.

Tentative Diagnosis: Dementia paralytica based on the spinal fluid cell increase, seizures beginning at the age of 43, pupillary disturbance, speech and memory impairment.

Course: 40 intravenous injections tryparsomide, 2 grams each at weekly intervals with potosium iodid and mercury by mouth concurrently.

On April 22, 1930, Blood Wassermann (Kolmer) 4-plus; spinal fluid Wassermann 4-plus; cells 18; globulin present, colloidal gold curve still normal.

Clinically the patient is greatly improved in spite of serology. Has had no seizures since the institution of treatment.

Case 3. White, male, aged 32 years, admitted to the Mississippi State Hospital July, 1929. Farmer by occupation. Committed to the hospital on account of hallucinosis associated with ideas of persecution.

On examination no neurological disturbance was noticed. Memory was good. Mentally patient was actively hallucinated, hearing the voice of the Lord frequently. Had pronounced ideas of persecution on the part of a certain neighbor that desired his farm. Blood Wassermann negative. Due to the fact that our technician was critically ill and his successor had not been chosen, routine spinal fluid examination was temporarily discontinued. A diagnosis of dementia praecox was made.

The patient failed to improve. Instead, his memory began to fail, his speech became halting, he lost weight. He presented symptoms of pellagra for which he was treated. He improved slightly in nutrition but continued to go down mentally. A complete recheck of the case was made.

August 29, 1930.—Blood Wassermann (Kolmer): 4-plus; Kahn 4-plus, Kline and Young 4-plus; spinal fluid Wassermann 4-plus; cells 36; globulin plus; colloidal gold 5555552000.

Case 4. Single, white, male, aged 27 years, farmer, admitted to the Mississippi State Hospital February 18, 1928.

Previous History.—Had previously been a patient in the hospital in 1921 at which time both blood and spinal fluid were negative and a diagnosis of psychosis with mental deficiency made.

Examination.—Aortitis, hearing impaired in the left ear, occipital headaches. Blood pressure 120/75. Mentally presented a marked fear reaction and thought that someone was trying to kill him.

Serological.—Blood Wassermann (Kolmer) 4-plus; spinal fluid Wassermann negative; cells 35, globulin plus; colloidal gold 5555540000.

Treatment.—This consisted of malaria, 25 intravenous injections of neo-arsphenamine and 12 intravenous injections of tryparsomide. Potassium iodid given by mouth in ascending doses until

patient was taking 130 grains daily at which time it was discontinued.

November 12, 1928. Blood Wassermann negative; spinal fluid Wassermann negative; no globulin increase; colloidal gold curve normal, cells 20.

Comment.—Many more similar cases might be given but these four will suffice. They all show the necessity of careful observation and routine serological reports. Case 2 shows that treatment should not be neglected even though the serology is negative. A negative history of syphilis is unreliable.

One must not be afraid to make a diagnosis of syphilis in the face of both negative history and negative Wassermanns. As treatment depends on the diagnosis and dementia paralytica progresses rapidly, this is important.

Case 1 is chiefly of interest as it shows the course of syphilis in a patient over a period of seven years during which no treatment worthy of note was given.

The last case might have been overlooked entirely without the aid of the laboratory. Neurologic symptoms of paresis are not always present even though the person is insane and suffering from dementia paralytica.

The literature mentions other conditions which may cause a positive Wassermann reaction. They are rare and may be easily ruled out. Such conditions as epidemic encephalitis and multiple sclerosis may cause a colloidal gold curve of the paretic type, but the associated clinical picture usually suffices to establish the clinical entity present.

Conclusions.—1. In mental or nervous cases routine blood and spinal fluid examination is necessary, and should be repeated at intervals if any doubt arises.

2. Treatment should be instituted if sufficient clinical evidence is present even though the serology be negative.

STAFF MEETING OF THE KING'S DAUGHTERS' HOSPITAL, GREENVILLE, MISS.

April 6, 1932.

The staff of the King's Daughters' Hospital met April 6, and at seven-thirty a delicious dinner was served, the following members being present:

Drs. Lucas, Beals, Paul Gamble, Acree, White, Pegues, Montgomery, Beck, Dickens, Shackelford, Hugh Gamble, Payne, Davis, Wilson, Archer, Lewis, Eubanks, Hirsch.

The meeting was called to order after the dinner by the president, Dr. John Archer, who introduced as visitors of the staff Dr. Cooper of Catchings, Dr. T. F. Wilson of Arcola, and Dr. Westmoreland of Murphy, accompanied by his son. After the routine business was disposed of, dis-

cussion of the activities of the hospital for the past month was had.

A paper and case report was presented by Dr. L. C. Davis on "Chronic Sinusitis," which was discussed by Drs. Montgomery and Hugh Gamble, the discussion being closed by Dr. Davis.

A case report was given by Dr. Paul Gamble on "Hypernephroma" with roentgen ray pictures and pathological specimen. This report was discussed by Drs. Hirsch, Payne, and Beals, with Dr. Gamble closing the discussion.

The next meeting of the staff of the King's Daughters' Hospital was moved up one week on account of the meeting of the American Medical Association in New Orleans on the regular meeting date.

The subject of the State Medical Association meeting was brought up and it was urged that every one present make an effort to attend the meeting.

F. M. Acree.

Abstract—Chronic Paranasal Sinusitis.—Dr. L. C. Davis.

Patient.—White, female, aged 37, was seen in her home October 30, 1931.

Complaint.—Severe pain and numbness in neck, left arm and left leg.

Family History.—No cancer or tuberculosis in family. Nothing else remarkable.

Past History.—Has had diseases common to childhood but otherwise healthy till onset of present illness. Mother of four children, three of whom died of colitis. Had one miscarriage.

Present Illness.—Seven months ago began having tingling sensations in left arm and left leg. Pain and numbness became worse so that at the end of one month she could not walk or move her left arm.

Examination.—An obese white female mentally clear. Pulse 165, B. P. 132/80, heart in normal position, no murmur and regular in action. No evidence of pulmonary disease. No disease of gastro-intestinal tract. Reflexes normal. Pupils equal and react to light and in accommodation, media clear, fundi normal, vision good in each eye. Nares patulous, mucous membrane healthy in appearance, nasal septum straight, enlargement of left anterior ethmoid cells, antra and frontals clear under transillumination. Roentgen ray revealed enlargement and thickened walls of left ethmoid cells and other sinuses clear.

Laboratory Examinations.—Total red and white cell count within normal limits, differential leukocyte normal, blood wassermann negative. A history of two negative basal metabolism readings so none made. Urinalysis showed trace of albumen otherwise negative.

Diagnosis.—Intracranial new growths, brain abscess, intracranial hemorrhage, hyperthyroidism, gumma and hysteria were considered.

Treatment.—Lavage of left antrum with recovery of 2 cc. mucopurulent material and break-

ing over of left middle turbinate with improvement in symptoms at the end of one week. Complete abatement of symptoms with above treatments was obtained in January, 1932.

TRANSACTIONS OF ORLEANS PARISH MEDICAL SOCIETY

TRANSACTIONS ORLEANS PARISH MEDICAL SOCIETY.

- May 2—Eye, Ear, Nose and Throat Hospital Staff, 8 P. M.
- May 5—Clinico-Pathological Conference, Touro Infirmary, 11 A. M. to 12 Noon.
- May 6—Pathological Conference, Hotel Dieu, 11 A. M. to 12 Noon.
- May 6—Physiology Seminar, Tulane Medical School, 5 P. M.
- May 9—House of Delegates, Louisiana State Medical Society, 9 A. M., Tulane Medical School.
- May 9—House of Delegates, American Medical Association, 9 A. M. Auditorium.
- May 10—House of Delegates, Louisiana State Medical Society, 9 A. M., Tulane Medical School.
- May 10—House of Delegates, American Medical Association, 9 A. M. Auditorium.
- May 10—Opening Meeting, American Medical Association, 8 P. M. Auditorium.
- May 11—American Medical Association Meeting, 9 A. M. Auditorium.
- May 11—Touro Infirmary Staff, 8 P. M.
- May 12—Clinico-Pathological Conference, Touro Infirmary, 11 A. M. to 12 Noon.
- May 12—French Hospital Staff, 8 P. M.
- May 13—Pathological Conference, Hotel Dieu, 11 A. M. to 12 Noon.
- May 13—Physiology Seminar, Tulane Medical School, 5 P. M.
- May 16—Hotel Dieu Staff, 8 P. M.
- May 19—Clinico-Pathological Conference, Touro Infirmary, 11 A. M. to 12 Noon.
- May 19—Eye, Ear, Nose and Throat Club, 8 P. M.
- May 20—Pathological Conference, Hotel Dieu, 11 A. M. to 12 Noon.
- May 20—I. C. R. R. Hospital Staff, 12 Noon.
- May 20—Physiology Seminar, Tulane Medical School, 5 P. M.
- May 23—ORLEANS PARISH MEDICAL SOCIETY, 8 P. M.
- May 24—Baptist Hospital Staff, 8 P. M.
- May 26—Clinico-Pathological Conference, Touro Infirmary, 11 A. M. to 12 Noon.
- May 27—Pathological Conference, Hotel Dieu, 11 A. M. to 12 Noon.

May 27—Physiology Seminar, Tulane Medical School, 5 P. M.

During the month of April besides the regular meeting of the Board of Directors, the Society held a joint scientific and first quarterly executive meeting and a regular scientific meeting.

At the joint scientific and quarterly executive meeting two papers were read and discussed as follows:

Tonsillectomy by Fractional Electro-Coagulation. Advantages and Disadvantages of Diathermy in Otolaryngology.

By.....Dr. Geo. B. Collier
Discussed by Drs. C. L. Cox, J. B. Larose, N. H. Polmer, W. A. Lurie, M. P. Boebinger, J. P. O'Kelley and A. I. Weil.

Roentgenographic Visualization of the Liver and Spleen as an Aid in the Differential Diagnosis of Tumors of the Abdomen.

By.....Drs. C. J. Tripoli, E. Haam, and E. B. Lehman.

Discussed by Drs. Amedee Granger, L. J. Menville, W. H. Harris, Haam, F. M. Johns, C. W. Duval, N. H. Polmer and closed by Dr. Lehman.

At this meeting reports of the officers and various special and standing committees were read.

Dr. C. J. Landfried's name was proposed for Honorary Membership.

At the meeting held April 25 the following papers were read:

Personal Contribution to the Treatment of Fractures as the Result of Long Years of Study and Research.

By.....Dr. E. Denegre Martin
Discussed by Drs. A. C. King and Paul A. Mellhenny.

History of Plague and Personal Experience with the Disease.

By.....Dr. H. W. Knight
Dr. C. J. Landfried was elected to Honorary Membership at this meeting.

The following resolution presented by the Con-dolence Committee was adopted:

It is with a feeling of deep regret that we take note of the sudden and lamentable death of our

friend and colleague, Dr. J. Birney Guthrie, born in 1878. He received his degree of Bachelor of Science from Tulane University in 1896. After studying medicine at Tulane and the University of the South he graduated in 1900 from Tulane University valedictorian of his class, after an internship of two years in Charity Hospital.

Dr. Guthrie's ability as a teacher in medicine was recognized early in his professional career. He gained his spurs by virtue of his high intellectual attainments and by the success which he achieved as a teacher in medicine Tulane University bestowed upon him the professorship of clinical medicine, and upon the organization of the L. S. U. Medical School last fall he was called to the chair of medicine in that institution. Dr. Guthrie was a pioneer in radiology in this city and a fellow of the American College of Physicians; was on the medical staffs of Touro Infirmary, Hotel Dieu and Charity Hospital. He served with distinction during the World War and was two years in the service of his country. After the war he was made a colonel in the Medical Reserve Corps. He took an active part in organized medicine and at one time was 3rd vice-president of the Louisiana State Medical Society, and president of the Orleans Parish Medical Society in 1928. He contributed notable papers to medical literature and he took special pride in the contribution which he gave to physical diagnosis in emphasizing the importance of light percussion in cardiac disease.

Dr. Guthrie, at the time of his death, was a member of the American College of Physicians, Orleans Parish Medical Society, Louisiana State Medical Society and the American Medical Association.

Dr. Guthrie was a very handsome and distinguished looking man. He possessed a very high intellectual mentality and a very strong personality. He was always actuated by the highest principles and was impatient of anything which he considered inconsistent with these principles. Because of this characteristic he was misunderstood by some who entertained opinions about which there could be honest differences. He possessed many lovable qualities and his loyalty to his old friends was not the least. He was deeply interested in the study of medicine and his medical knowledge, his experience as a practitioner, his breadth of vision and his ambition to develop the department of medicine in his latest assignment, render his death a loss to our society and to our state.

THEREFORE, BE IT RESOLVED, That a copy of these resolutions be spread upon the minutes of the Society, and a copy be sent to the family of the deceased member.

We regret to report the resignation of Dr. Herbert H. Meyer, an Associate Member.

The Secretary's office has been very busy completing plans for the meeting of the American Medical Association. All committees have been meeting and making final arrangements.

APPLICATIONS POSTED.

Active.—Drs. J. J. Archinard, H. T. Beacham, C. A. Born, F. C. Hava, C. P. Holderith, C. W. Rossner and M. P. Sullivan.

Interne.—Drs. J. A. Alvarez, Leo. G. Davis, J. E. Granade.

LIST OF SUBSCRIBERS TO A. M. A. FUND FROM THE ORLEANS PARISH MEDICAL SOCIETY.

Adams, J. M.	Graves, Amos
Aleman, Ruth G.	Hardin, Geo. L.
Alsobrook, H. B.	Harrison, Roy B.
Ane, J. N.	Hatch, E. S.
Bahn, Chas. A.	Hill, Lucy S.
Bamber, J. M.	Hobson, Sam
Bass, C. C.	Hebert, J. S.
Bass, Elizabeth	Holbrook, C. S.
Ballard, E. Loeber	Hopkins Ralph
Bel, Geo. S.	Hume, Jos.
Bernadas, H. E.	Humphries, E. R.
Bethea, O. W.	Irwin, E. L.
Blum, H. N.	Irwin, J. J.
Bradburn, Muir	Jamison, Chaille
Bradburn, W. P.	Johns, F. M.
Block, W. H.	Jones, P. H.
Brown, Geo. S.	King, A. C.
Browne, D. C.	Knight, H. W.
Bruns, H. D.	Knolle, W. A.
Chalaron, F. J.	Landfried, C. J.
Chassaignac, Chas.	Landry, L. H.
Chavigney, C. N.	Lanford, J. A.
Cohn, Isidore	Larue, F. A.
Cole, J. C.	Lawson, E. H.
Crawford, Rena	Leake, J. P.
Daspit, Henry	LeJeune, F. E.
Davidson, J. M.	Lemann, I. I.
Derbofen, J. C.	Lescale, Maurice
Dismuke, Lily L.	Levin, A. L.
Dorrestein, C. A. M.	Lewis, E. S.
Dupuy, Homer	Lyons, Marcy J.
Durel, W. J.	Lyons, Randolph
Elliott, J. B.	Lyons, S. C.
Ernst, O. F.	MacLean, B. C.
Feldner, Geo. D.	Maes, Urban
Fenner, E. D.	Martin, E. D.
Fenno, F. L.	Matas, Rudolph
Fisher, R. H.	Menage, H. E.
Gallo, Frank	Menville, L. J.
Gessner, H. B.	Metz, W. R.
Gilpin, Florence Ruth	Miller, C. Jeff
Gomila, F. R.	Miller, H. E.
Granger, Amedee	Mitchell, Leopold

Murphy, P. F.	Scott, L. C.
Musser, J. H.	Seemann, W. H.
McCormac, Edward	Sellers, T. B.
McIlhenny, P. A.	Simon, Sidney K.
Nix, J. T.	Souchon, Edmond
Ochsner, Alton	Souchon, Marion
Odom, M. M.	Stone, J. Kelly
O'Hara, J. A.	Stone, R. E.
O'Kelley, J. P.	Stork, A. H.
Overbay, F. A.	Strong, R. A.
Perret, J. M.	Taquino, G. J.
Perkins, W. H.	Van Studiford, M. T.
Phillips, W. D.	Vickery, E. B.
Polmer, N. H.	Voss, C. H.
Rabouin, L. L.	Voss, R. C.
Reddoch, J. W.	Walet, E. H.
Reed, W. A.	Walshe, T. J.
Robbins, I. L.	Walther, H. W. E.
Robin, W. H.	Wilson, M. F.
Roussel, J. N.	Williamson, G. Richarda
Salatic, P. B.	Yenni, A. S.

Dean of the Medical School requested that this be done by the members of the Tulane Staff as well. This record has been kept since March 12. It is thought that much information relative to the processes of library work may be gained from such a record. Since this daily record is being kept, a notation of individual reference subjects has not been made. There are however, certain ones which it might be well to mention separately.

- Nutritional Value of the banana.
- Rupture of Uterus in Labor.
- Lichen Planus of Mouth, Tongue and Throat.
- Diathermy over Liver in Prevention of Surgical Shock.
- Influence of Weather on Human Beings—Seasonal Influence on Suicidal Intent.
- Treatment of Varicose Veins.
- Cervix as a Source of Infection in Arthritis—diagnosis and therapy.

OUT-OF-TOWN SUBSCRIBERS TO

A. M. A. FUND.

Ayo, J. J.; Baker, C. M.; Caldwell, G. A.; Callihan, P. W.; Couvillon, W. F.; Engelbach, Theo; Frazar, F. R.; Frazar, J. D.; Horton, C. M.; Kappel, A. C.; Landrum, J. H.; Morris, H. G.; Smith, Glenn J.; Woolworth, J. D.

TREASURER'S REPORT.

Actual Book Balance, 2/29/32	\$1,987.58
Receipts	2,861.47
Total Credits	4,849.05
Expenditures	1,160.29

Actual Book Balance 3/31/32..... \$3,688.76

LIBRARIAN'S REPORT.

One hundred and seventy-five books have been added to the Library during March, of which 7 were received by purchase, 20 from the New Orleans Medical and Surgical Journal, 40 by binding and 108 by gift. New titles of recent date are listed below.

A circular letter was sent to the membership the latter part of February asking for volunteers in the work of book reviewing—by which we secure practically all of our new textbook material. Out of 551 letters mailed, 26 answers were received, four of which were by personal call. Of these 26, nine were from men who have helped us with the book reviewing for the past three years.

Early in the month, it was suggested by Drs. Lanford and Oschner that the members of the Library staff keep for a specified time a daily notation of the various library routines which occupy their days, noting interruptions, etc. The

NEW BOOKS.

- Washington Institute of Medicine v. 2. 1932.
- Sluss—Emergency Surgery. 1931.
- General Surgery—Practical Medicine Series. 1931.
- Erleben—Notes on Children's Nursing. 1931.
- Margolis—Conquering Arthritis. 1931.
- Rasmussen—Principal Nervous Pathways. 1931.
- BiSodol Co.—Vomiting of Pregnancy. 1932.
- Darrach—Epidemic Encephalitis. v. 2. 1932.
- U. S. Commerce Dept. Manual of International list of Causes of Death. 1931.
- U. S. Commerce. Warning agents for fuel gases. 1931.
- Presse Medicale—L'enseignement de la medecine en France. 1932.
- American Hospital Association—Transactions. 1930-31.
- Hoffman—San Francisco Cancer Survey. 5. 7. 1931.
- Konikow—Physicians Manual of Birth Control. 1931.
- Straub—Surgery of the Chest. 1932.
- Granger—Radiological Study of the Para-Nasal Sinuses and Mastoid. 1932.
- Henry—Essentials of Psychiatry. 1931.
- Dawson—History of Medicine. 1932.
- Stryker—Courts and Doctors. 1932.
- Bailey—Emergency Surgery. 1930. 2v.
- Jewell—Handbook of tropical fevers. 1932.
- Harrison—Diagnosis and Treatment of Venereal Diseases in general practice. 1931.
- Blanton—Medicine in Virginia in the 18th Century. 1931.

H. Theodore Simon, M. D.,
Secretary.

LOUISIANA STATE MEDICAL SOCIETY NEWS

H. Theodore Simon, M. D., Associate Editor

PRESIDENT'S PAGE

ADIEU.

My service as President of the State Society comes to a close about the time this issue of the JOURNAL reaches its readers. In bidding farewell to you all officially, I feel uppermost, a desire to say to each and everyone that my year's work has been one of real pleasure and made so by the cordiality I have met on all occasions by the profession wherever I have traveled.

It has been my wish and effort to meet and discuss with all, our mutual problems. This has been impossible, because of the bigness of the job, but the effort has been made and it has been gratifying to find united opinion among the physicians of the State on certain fundamental principles upon which rests the future of our American system of practicing medicine.

These principles must be upheld by us individually and in our organization, and must be established in the minds of the public in order that scientific medicine may continue to progress, which, of course, is the prime wish of all good doctors. This can only be done through organizations' efforts and the willingness of individuals to stand up fearlessly and express their convictions.

As you read this, my last President's Page, a few days remain for you to renew your membership in or join your local and State Society. Come with us, join with us in a pilgrimage to New Orleans for the American Medical Association and let each add his bit for a general better medical condition.

Assuring each and everyone that I appreciate and prize highly, the new friendships made and the old ones renewed this year during my official

service, I bid you a presidential farewell with every sincere and good wish.

S. C. Barrow, M. D.,
President.



DR. S. C. BARROW, PRESIDENT,
Louisiana State Medical Society.

FIFTY-THIRD ANNUAL MEETING, LOUISIANA STATE MEDICAL SO- CIETY.

The fifty-third meeting of the organization will be largely a business meeting. The House of Delegates will be called to order on Monday, May 9, at 9:00 a. m., in the Green Room of the new Hutchinson Memorial Building, 1430 Tulane Avenue. After the business meeting, luncheon will be served to the officers and members of the House of Delegates by the Louisiana State University Medical Center at Charity Hospital. The House of Delegates will meet again in the afternoon of the same day, and the last meeting will be held Tuesday morning, May 10. There will be a general meeting, to which everyone is invited, at 8:30 p. m., in the auditorium of the Hutchinson Memorial Building. The two important features of the evening program will be the Presidential Address, to be given by our President, Dr. S. C. Barrow, and the presentation of emblems to the living Past Presidents. There are twenty-two living Past Presidents of the Louisiana State Medical Society, the oldest of whom, in chronological order, is Dr. Rudolph Matas, and the youngest Past President in point of service will be the retiring President, Dr. S. C. Barrow. It is earnestly hoped that all members of the House of Delegates will attend this meeting, and that the members of the Louisiana State Medical Society who are in New Orleans for the purpose of attending the

American Medical Association will make a sincere effort to be present as well.

MEETINGS DURING THE WEEK OF THE AMERICAN MEDICAL ASSOCIATION. THE AMERICAN HEART ASSOCIATION.

The Scientific Session of the American Heart Association will be held on Tuesday, May 10, 1932, from 9:30 a. m. to 5:30 p. m., in the New Orleans Municipal Auditorium, Rampart and St. Peter streets, New Orleans, Louisiana.

THE AMERICAN COMMITTEE FOR THE CONTROL OF RHEUMATISM.

This organization will meet Monday, May 9, at 9:00 a. m. to 12:00 noon, probably in the Roosevelt Hotel. A most interesting program has been arranged as a symposium on rheumatic diseases to which physicians, medical students, nurses, and physiotherapists are cordially invited. The program consists of eight papers, with three additional ones if time permits. Among the essayists is Dr. E. Starr Judd, President of the American Medical Association.

MEDICAL VETERANS OF THE WORLD WAR.

The Medical Veterans of the World War will have their annual meeting and dinner during the American Medical Association meeting in New Orleans. It will be at the Roosevelt Hotel, at 6:00 p. m., May 10, 1932, for men only. The speakers will be Dr. Rudolph Matas, Dr. Charles H. Best, and Francisco M. Fernandez. Tickets may be obtained at Registration Bureau or hotel desk. All medical veterans are invited. For additional information apply to Lieutenant Colonel McIntyre, M. C., United States Army, 423 Canal Street, New Orleans.

THE AMERICAN SOCIETY OF CLINICAL PATHOLOGISTS.

The American Society of Clinical Pathologists will meet in New Orleans on Friday and Saturday, May 6 and 7.

Meetings will be held in the auditorium of the Jung Hotel during both of these days, and are open to all physicians and technicians engaged in medical work. A number of scientific exhibits will be on display in the Florentine Room of the same hotel.

THE ASSOCIATION FOR THE STUDY OF INTERNAL SECRETIONS.

This organization will meet in their sixteenth annual session beginning Monday, May 9 and extending through Tuesday. The meeting will be called to order in the Hotel Roosevelt by the President, Dr. Joseph C. Aub. A splendid program has been arranged including such names as Cunningham, Newburgh, Schaffer, Webster, Means, Hoskins, Hartman, Swingle, and Rowntree. Dr. L. R. DeBuys is Chairman of the Committee on Arrangements.

The American Medical Golfing Association will hold its Eighteenth Annual Tournament in New Orleans on Monday, May 9, 1932. The thirty-six hole match will be played over the beautiful and interesting New Orleans Country Club course, followed in the evening by the golfers' banquet and distribution of prizes. Approximately fifty trophies and prizes will be distributed to winners in the various events.

DR. MATAS DELIVERS BALFOUR LECTURE.

The Donald C. Balfour lectureship in Surgery was delivered by Rudolph Matas, Emeritus Professor of Surgery, Tulane University of Louisiana, on Tuesday, April 5, 1932, in Convocation Hall of the University of Toronto. This lectureship commemorated the one hundred and fifth anniversary of the birth of Lord Lister. Dr. Matas took for his subject "The Story of Postoperative Pulmonary Embolism before and after Lister."

NEW ORLEANS GASTRO-ENTEROLOGICAL SOCIETY.

At a meeting of the New Orleans Gastro-Enterological Society, held in February, the following officers were elected: President, Dr. A. L. Levin; vice-president, Dr. Herbert L. Weinberger; secretary-treasurer, Dr. Donovan C. Bowne. The Society holds its meetings every two months, and the last meeting was held on April 14, in the Library of Charity Hospital. It is the aim of this Society to foster the advancement of Gastro-Enterology and members are privileged to invite guests to the meetings.

D. C. Browne, M. D.,
Secretary.

THE EAST AND WEST FELICIANA BI-PARISH MEDICAL SOCIETY.

The Bi-Parish Medical Society met in the East Louisiana State Hospital. Dr. Glenn J. Smith read a paper prepared by Dr. McConnell, who was unfortunately ill with influenza. The title of the paper was "Constitutional Psychopaths and Their Segregation." Discussion was opened by Dr. Robards and freely and favorably discussed by other members present.

Dr. P. H. Jones, Jr., of New Orleans read a paper on "Amebiasis," which was freely and favorably discussed by members present.

A vote of thanks was extended to Drs. McConnell, Smith and Jones for the preparation and presentation of their most excellent scientific papers. Dr. P. H. Jones, Sr., was elected an honorary member.

Members present were: Drs. Shaw, Miller, P. H. Jones, Sr., and Jr., Wilkinson, Robards, Green, Blakeney, C. S. and E. M. Toler, Leo Smith, Gilbeau, Turner and Stanley; the Rev. Nelson, Mrs. Smith, Mrs. Miller, Mrs. Burnham, Misses Late and Campbell.

The Society adjourned to meet first Wednesday in June 7:30 p. m., in the East Louisiana State Hospital.

E. M. Toler, M. D.,
Secretary.

OUR LADY OF THE LAKE SANATARIUM.

On March 23, 1932, the staff of Our Lady of the Lake Sanatorium presented a symposium on Tuberculosis in honor of Robert Koch's discovery of the tubercule bacillus. The program was as follows:

"History of Robert Koch and His Discovery of the Tubercle Bacillus," by Dr. E. O. Trahan, Chief of Staff.

"Pathological Anatomy of Tuberculosis," by Dr. J. L. Bevin.

"Childhood Type Tuberculosis," by Dr. Cecil O. Lorio, F. A. C. P.

"Tuberculosis in Adults," by Dr. Guy Riche.

"Roentgen Ray of Tuberculosis," by Dr. Lester J. Williams, F. A. C. P.

"Tuberculosis of the Eye, Ear, Nose and Throat," by Dr. C. A. Weiss.

"Surgical Aspect of Tuberculosis," by Dr. Tom Spec Jones.

"Hospitalization of Tuberculosis," by Dr. Geo. Sitman.

The program was very well attended and liberally discussed.

NEWS ITEM.

On April 14, 1932, Prof. Charles J. Bloom of the Graduate School of Medicine of the Tulane University of Louisiana, presented a paper on "Calcium Therapy" at a meeting of the French Hospital Staff, New Orleans.

On April 20, 1932, Prof. Bloom addressed the meeting of the Alabama State Medical Association at Mobile, Ala., on "The Role of Calcium and Phosphorus in the Prevention and Cure of Rickets."

Prof. Thomas Benton Sellers, with the Graduate School of Medicine of the Tulane University of Louisiana addressed the meeting of the Alabama State Medical Association, held at Mobile, Ala., April 20, 1932, on "The Diagnosis and Office Treatment of Commonly Neglected Gynecological Conditions." Dr. Sellers was the fraternal delegate from the Louisiana State Medical Society.

Dr. Allan C. Eustis, Professor of Clinical Medicine with the Graduate School of Medicine of the Tulane University of Louisiana, attended the meeting of the Mississippi State Medical Society, at Jackson, Miss., April 12 to April 14, 1932, and presented a paper on "Headaches, Causes and Treatment." Dr. Eustis was the fraternal delegate from Louisiana at this meeting.

Dr. Leon J. Menville, recently attended a dinner at the New York Athletic Club given in honor of Dr. Joseph Colt Bloodgood, of Johns Hopkins Hospital. This dinner was arranged by the editorial board of "The American Journal of Cancer" to summarize American accomplishments in the field of cancer research on the eve of Dr. Bloodgood's departure for a lecture tour in Europe.

Dr. Francis Carter Wood, of Columbia University, was toastmaster. Several announcements of importance were made in regard to recent experimental research work having a bearing on cancer. Among these was the announcement of a new X-ray tube capable of withstanding an enormous voltage. Another announcement—made at the request of the toastmaster—was the visualization of lymph nodes in living animals by Doctors Menville and Ane.

Among the speakers were: Dr. Dean Lewis of Johns Hopkins University; Dr. Francis Carter Wood, editor of "The American Journal of Cancer;" Dr. Leon J. Menville, editor of "Radiology;" Dr. J. Bently Squire, president of the American College of Surgeons; Dr. Burton T. Simpson, director of the New York State Institute for the Study of Malignant Diseases; ;Dr. Byron Jackson, president-elect of the Radiological Society of North America.

UNITED STATES PUBLIC HEALTH SERVICE ITEMS.

Past Assistant Surgeon W. F. Ossenfort, much to the regret of the many friends that he has made in New Orleans during his tenure of duty in the Marine Hospital, has been relieved from duty here on or about March 26 and assigned to duty at the United States Penitentiary, Atlanta, Georgia.

A Board was convened May 2, 1932, at the Marine Hospital, New Orleans, for the purpose of examining candidates entering the regular corp of the United States Public Health Service. The detail for the Board was Medical Director L. L. Lumsden, Chairmen, Surgeon William Y. Hollingsworth, member, and P. A. Surgeon Guy H. Faget, Recorder.

IBERVILLE PARISH MEETING.

The medicoes of the parish were entertained by Dr. White Glendower Owen at his Nottoway home, near White Castle, on Saturday evening. There were present Drs. E. L. Major, W. H. Wagley, Eugene Holloway, S. C. Levy, Adrian A. Landry, William E. Barker R. D. Martinez, Guy A. Darcantel, Cyril Eby and W. G. Owen.

The guest of honor was Dr. Edgar Burns of New Orleans, who read an interesting paper on his specialty, illustrated on the screen.

The President, Dr. S. C. Levy, also delivered an address covering the activities of the past year. The following officers were elected: President,

Dr. W. H. Wagley; vice-president, Dr. G. A. Darcantel; secretary and treasurer, Dr. William E. Barker; delegate to state convention, Dr. W. G. Owen; alternate, Dr. A. A. Landry.

INFECTIOUS DISEASES OF LOUISIANA.

Dr. J. A. O'Hara, in collaboration with the United States Public Health Service, has issued weekly morbidity reports which briefly abstracted show the following and outstanding features. For the week ending March 19 there was reported for the State of Louisiana 56 cases of measles, 80 of syphilis, 41 of diarrhea, 32 of influenza, 23 of diphtheria, 21 of scarlet fever, and 14 of typhoid fever. The typhoid fever cases were scattered rather widely over the state. The following week, ending March 26, the outstanding feature was the large number of measles cases reported, 219 in all in various parishes. The instance of other important and frequently reportable diseases were as follows: Eighty-nine of whooping cough, 60 of influenza, 50 of syphilis, 17 of diphtheria, 21 of pneumonia, 21 of tuberculosis and 12 of typhoid fever. Two cases of leprosy were reported from New Orleans for this week. For the week which ended on April 2, it was found from these morbidity reports that the measles epidemic had increased, there being 236 cases reported. On the other hand, whooping cough had dropped to 27 cases, and influenza to 36. There was also reported the following: Forty-three of syphilis, 28 of tuberculosis, 19 of pneumonia, 29 of diphtheria, and 14 of typhoid fever. All except 3 of the diphtheria cases came from Orleans Parish, and 4 of the 14 cases of typhoid fever from Rapides. During the fourteenth week of the year, which ended April 9, the reports show that the instance of measles had markedly decreased, there being only 27 cases listed for this particular week. The other diseases which occurred in double figures were as follows: Twenty-eight of whooping cough, 61 of syphilis, 16 of typhoid fever, 15 of scarlet fever, 31 of pulmonary tuberculosis, 34 of pneumonia, 37 of influenza, and 28 of diphtheria. Four cases of smallpox were reported from Caddo Parish and 2 others as well. Of the 16 cases of typhoid fever, 4 of them came from the Parish of Evangeline. For the week ending April 16, the instance of measles had increased markedly, there being 103 cases reported. The number of cases of other important diseases recorded during this week were as follows: Forty-two of pulmonary tuberculosis, 31 of diphtheria, 17 of cancer, 17 of pneumonia, 18 of syphilis, 13 of whooping cough, and 12 of typhoid fever. One case of poliomyelitis was reported, 3 cases of smallpox, 1 of tularemia, and 1 of leprosy.

HEALTH OF NEW ORLEANS.

The Department of Commerce, Division of Vital Statistics, has published the following informa-

tion concerning mortality conditions in the city of New Orleans. For the week ending March 12 there were 159 deaths in the city, 99 of which were white and 16 of which were colored, giving a total death rate of 17.5, the white rate being 15.4 and the colored 22.8. During the week the infant mortality rate was 57. For the week ending March 19, the death rate had raised somewhat, being 18.1, 24.4 for the negro, and 15.5 for the white, as a result of 100 deaths in the white population and 64 in the colored. The infant mortality rate had jumped up to 91 as a result of a surprisingly large rate among the white population of 113, as contrasted with only 49 among the negroes. The week ending March 26 still showed a death rate higher than it has been for some time. There were 102 deaths among the whites and 64 among the colored population, giving a death rate of 24.4 for the latter, and 15.8 for the former, with a total rate of 18.3. The infant mortality rate for this week was 63, for the white 70, and for the negro population 49. The next week, ending April 2, the death rate had dropped considerably. There were only 138 deaths this week, with a total death rate of 15.2. The death rate for the white population was 13, and the colored 20.5. The infant mortality rate had also diminished considerably, and the usual ratio between white and colored was followed. The death rate in the white infants was 35 and the colored 98. For the week ending April 9 there was a slight increase in the number of deaths, there being 149 in all, giving a death rate of 16.4. The white death rate was 15, and the colored 19.8. The infant mortality rate for the total population was 68, 32 for the white and 98 for the colored.

The 1931 death rate was lower than in previous years. The 1932 death rate so far is well below that of 1931. For the first 14 weeks of the year the 1932 rate is 16.0, as contrasted with 19.3 in 1931. The death rate among the white population, namely, 13.6, compares very favorably with most of the larger cities in the United States.

THE SLIDELL PREVENTORIUM.

The Orleans Parish Tuberculosis and Public Health Association conducted a George Washington bicentennial tree planting ceremony Saturday, April 16, on the grounds of their Preventorium, at Slidell, La. The program was under the general chairmanship of Mrs. Edward Pilsbury, assisted by an able committee—

Mrs. Jesse P. Wilkinson, Chairman of Arrangements; Mrs. M. Miller, Supervisor; Mrs. R. L. Skinner, Mrs. G. S. Miller, Mrs. J. M. Koelle, Mrs. J. Richards, Miss Alma Goetz, hostesses; Dr. and Mrs. J. K. Griffith, chairmen, Slidell arrangements.

fices, private homes, and public libraries as possible."

It is very pleasant to be able to print such a report as the above and Shreveport is to be congratulated on its wide-awake Auxiliary.

ORLEANS PARISH.

The Woman's Auxiliary to the Orleans Parish Medical Society met at the Orleans Club, Wednesday, April 13, at three o'clock. A large number of the members were present and the auxiliary can now claim a membership of 317 in good standing. It was decided to co-operate with the Social Hygiene Committee and make that work a definite part of the Auxiliary's program. Mrs. W. W. Butterworth was appointed by the president, Chairman of this committee, with the privilege of choosing her own workers.

The Philanthropic Committee had a good report of having distributed 75 garments to the different organizations they are interested in.

A year book was decided upon and there is every prospect that we can look forward to something quite worth while, and it will give others an idea of what the organization has been doing.

A very important motion was made and seconded, that of putting yearly half our money from the general account into the commemoration fund, which is a savings account, to be used in some charitable way. This commemoration fund has been an ideal of the Auxiliary since its inception, and we have made strenuous efforts to make it grow. The idea is a fine one, to give money to

the fund for any event, sorrowful or joyous, and thereby getting enough together that will give us something enabling us to do an important piece of work.

Mrs. Joseph Hume, General Chairman of the coming convention of the Woman's Auxiliary to the American Medical Association, presented her final plans, which were received with much enthusiasm.

We trust that our guests will enjoy the entertainments as much as we have the planning of them.

JAMBALAYA.

Our west coast states now show active Auxiliaries from Canada to Mexico.

A member of the Sacramento Auxiliary is supplying a course of three studies of the California public health laws and regulations. This Auxiliary at one of its meetings had the pleasure of hearing Dr. June Harris give his able lecture on "The History of Medicine in Northern California." This brings the reflection that there is not a state where the history of its medicine men may not form a thrilling and inspiring true story.

The Minneapolis Auxiliary, at its January meeting, voted a \$300.00 student loan fund for medical students at the University of Minnesota, this fund to be administered by the Dean of the University.

MEDICAL EDUCATION.—More time in the medical school curriculum should be given to teaching internal medicine and to taking histories. The student who should be taught how to ask questions and how to record and interpret the significance of the answers. This is almost a lost art, the student relying too much on laboratory determinations.

I have many times told my students that if I could not make both the oral examination and the physical examination, I would omit the latter. Properly directed questions and a careful study

of the answers will tell whether the patient has a defective heart and whether or not he needs special treatment of that condition; whether or not he has beginning tuberculosis; and whether or not he has some other serious disturbance or pathological condition. The careless physician who does not make a diagnosis many times succeeds in aiding the patient because he knows how to ask questions, and the practitioners of many medical cults succeed in benefiting patients for the same reason.—Osborne, Oliver T.: *Med. Jr. and Record*, Oct. 1, 1930.

MISSISSIPPI STATE MEDICAL ASSOCIATION NEWS

L. S. Lippincott, Editor

Jacob S. Ullman, Associate Editor

D. W. Jones, Associate Editor

THE ANNUAL MEETING.

The Sixty-fifth Annual Session of the Mississippi State Medical Association, at Jackson, on April 12, 13, and 14, was a great success. All honor to Dr. John C. Culley President, and to every officer of the Association for a year of hard and constructive work. They have kept organized medicine in Mississippi moving upward and have turned over to their successors a standard well worth following.

The twenty-ninth session of the House of Delegates was a busy one. For the first time, the entire forenoon of the first day was given over to business of the Association and the House met daily thereafter. Next year the House of Delegates will be presided over by a speaker, Dr. Percy Wall of Jackson, well known throughout the state as a leader.

Meeting in conjunction with the Medical Association was the Women's Auxiliary of the Mississippi State Medical Association, and the Mississippi State Hospital Association.

It was truly a week of great interest to everyone connected in any way with medicine.

FROM OUR PRESIDENT.

To the Members of the Mississippi Medical Association:

Please accept at this time my sincerest thanks and appreciation of the highest honor within the gift of the Mississippi State Medical Association, the office of President. I find that words are inadequate to really express my feelings. My only qualification for this honor is my great desire and willingness to serve you efficiently through the coming year. The Mississippi Medical Association,

during its 65 years of existence, has had many men of great ability at its head. It has accomplished much, but still there must be many things that can be done. Whether anything of note will be perfected during my term of office

remains to be seen.

My hope and prayer is that I may be able to do something that will merit recognition and justify your selection of me.

At the present time I have no plans. You have just ended a most successful year under the able leadership of Dr. John Culley. Dr. Culley gave freely of his time and talents and made one of the best Presidents the Association has ever had. His activities in regard to the Mississippi Medical Department at the University were most commendable. It is my desire and purpose to do everything in my power to see what Dr. Culley had advocated and worked for, in regard to this matter, come to pass. My position is most emphatically one favoring a continuation of this two-year medical school.

In regard to membership, it is my wish that the President and the Vice President have charge of increasing, or at least

maintaining, our present high percentage of members.

I shall very shortly communicate with the President-elect and Vice-Presidents and urge them to contact the component societies with this end in view. I am very anxious that the membership of the Ladies' Auxiliary be also increased. I feel that this can be done.

In conclusion let me say again, as I have said many times before, that I want the advice and council of all members of the Association. Feel



JAMES M. ACKERS, JR., M. D.

Aberdeen, Mississippi.

President of the Mississippi State Medical Association.

free to approach me on any subject that you see fit. I shall always be ready and anxious to co-operate with you in any way possible. Many times, mistakes may be avoided by advice from wiser and more experienced heads of which the Mississippi Medical Association has many.

James M. Acker, Jr.

OFFICERS FOR 1932-33.

President, J. M. Acker, Jr., Aberdeen.
 President-elect, John W. D. Dicks, Natchez.
 Vice-Presidents, B. S. Guyton, Oxford; J. S. Hickman, Philadelphia; Riley Burnett, Biloxi.
 Historian, E. F. Howard, Vicksburg.
 Editor, Leon S. Lippincott, Vicksburg.
 Associate Editors, J. S. Ullman, Natchez; D. W. Jones, Jackson.

Treasurer, E. L. Wilkins, Clarksdale.

Secretary, T. M. Dye, Clarksdale.

Council: First district, J. W. Lucas, Moorehead; second district, L. L. Minor, Route 4, Memphis Tenn; third district, M. W. Robertson, Corinth; fourth district, T. J. Brown, Grenada; fifth district, W. H. Watson, Pelahatchie; sixth district, H. Lowry Rush, Meridian; seventh district, Joe E. Green, Laurel; eighth district, W. H. Frizell, Brookhaven; ninth district, D. J. Williams, Gulfport.

Speaker of the House of Delegates, J. P. Wall, Jackson.

Delegate to the American Medical Association, H. A. Gamble, Greenville.

Fraternal Delegate to Alabama State Medical Association, J. W. Lipscomb, Columbus.

Fraternal Delegate to Tennessee State Medical Association, D. W. Hamrick, Corinth.

Fraternal Delegate to Arkansas State Medical Association, D. C. Montgomery, Greenville.

Fraternal Delegate to Louisiana State Medical Society, A. Street, Vicksburg.

Budget and Finance Committee, S. E. Eason, New Albany; D. C. Montgomery, Greenville; W. L. Little, Wesson.

SECRETARY'S REPORT.

To the House of Delegates, Mississippi State Medical Association.

Gentlemen: At a called meeting of your House, held on April 11, 1932, the date for holding the 1932 session of the Association and of the House of Delegates was changed from May 10 to April 12.

Very soon after the adjournment of the 1931 session of your House, Treasurer L. W. Cooper resigned and President Culley appointed E. L. Wilkins of Clarksdale to act until this meeting. Treasurer Cooper's accounts were all carefully audited, a new bond in the sum of \$15,000 was made for the Acting Treasurer, and all moneys and papers were turned over to him.

On August 20, 1931, Councillor W. G. Gill of

the sixth district died and President Culley appointed H. Lowry Rush of Meridian to act as Councillor until this meeting.

The apportionment of Delegates to the American Medical Association is made upon the basis of one delegate for each eight hundred members, or fraction thereof, as of April first. Some years ago your House made all members delinquent after April first so that we might have a full membership at the time of the apportionment. Last year the date for becoming delinquent was changed to February first. Had the apportionment been made this year we would have lost one delegate, as we did not have a membership of eight hundred on April first. I recommend that the date for becoming delinquent be changed back to April first.

I recommend that the President-elect and the three Vice-Presidents be made members of the House of Delegates.

At the 1931 session of the House the following proposed changes in the Constitution were introduced, and should come up at this session for final disposition.

Change Article III.

Change Article IV, Section 2.

At the last session of the 1931 House proposed changes in Chapters VI and VII of the By-Laws were introduced, and should be brought up at this session. Inadvertently these by-law changes were printed in the By-Laws.

Sincerely yours,

T. M. Dye, Secretary.

BUDGET.

To the Budget and Finance Committee.

Gentlemen: I recommend for your guidance the following budget for the coming year:

President's expense account.....	\$100.00
Secretary's salary	500.00
Secretary's expense account.....	100.00
Editor's expense account	300.00
Historian's expense account:	
Retouching photos and cuts	170.00
Council's expense account.....	100.00
N. O. Medical and Surgical	
Journal	900.00
Transactions	300.00
Expense, Annual Meeting	300.00
Incidentals	50.00

Total \$2,820.00

Sincerely yours,

T. M. Dye, Secretary.

O. K. W. L. Little, S. E. Eason, D. C. Montgomery.

REPORT OF COUNCIL.

To the House of Delegates, Mississippi State Medical Association.

Gentlemen: During the past year the Council

has been in session twice—once in special session on call of the President, Dr. Culley, and once daily in regular session during the meeting of the State Association just drawing to a close.

The special session was held in the city of Jackson on March 18, 1932. This session of the Council was called by the President for the purpose of endorsing his action in calling a special session of the House of Delegates to change the time of meeting of the State Medical Association from May, 1932, to April 12, 13, and 14, 1932, and then interview appointments of a new Treasurer and Councilor for the fifth district.

The Council unanimously endorsed the above mentioned acts of the President. The Council has met daily during this session of the State Medical Association and with the exception of one Councilor, who was detained at home on account of a death in his family all councilors were present.

The Council, acting as the Medico Legal Committee of the Association, approved the defense by this Association of three malpractice suits, and postponed action on one case in order that the papers in the case might be completed by the physician asking for defense. Bills for attorneys in two cases that have been disposed of by the courts were ordered paid. The Council also stipulated the amount to be paid out of the Medico Legal fund for the defense in each of the malpractice suits approved for defense.

The Council endorsed the work of the Committee on Cancer Control. It is the opinion of the Council that in view of the increasing number of malpractice suits in Mississippi and the further fact that in many cases the basis for such suits lies in unguarded remarks made by patients, family or friends by physicians who are consulted by the patient after the original physician who had charge of the case has ceased to be connected with the case. These remarks, we are sure, are not intended to reflect on the first physician. They are thoughtlessly made, but are often misinterpreted by the laity to mean neglect or faulty treatment on the part of the first physician and form the basis for most malpractice suits.

We wish to request the fraternal delegates from our neighboring states to bring this matter to the attention of the profession in their respective states in order that concerted action may be taken.

The individual Councilors have been active in organization work in their respective districts. The reports of the Councilors show an active interest in organized medicine among the profession throughout the state.

REPORT OF COUNCILOR, SECOND DISTRICT.

In the second councilor district there are three

medical organizations:

The North Mississippi Medical Society, which is composed of members from seven counties, as follows: Benton County has 2 members, 3 non-members; La Fayette County has 9 members, 6 non-members; Marshall County has 7 members, 3 non-members; Panola County has 6 members, 12 non-members; Tippah County has 6 members, 6 non-members; Union County has 7 members, 10 non-members; Yalabusha County has 9 members, 7 non-members, which gives 46 members and 44 non-members. This society has also one member from LeFlore County and one from Tate County, totaling 48 members.

This gives the North Mississippi Medical Society a percentage of 52 plus.

The Tate County Medical Society has eight (8) members and five (5) non-members, which gives a percentage of 61 plus.

The DeSoto County Medical Society has 10 members and 3 non-members, which gives the percentage of 77 plus.

Our report is based on estimates of April 1, and, I am reliably informed that several members have paid their dues since this date. Each society has had two or more meetings during the year, with manifest interest.

Better times are ahead of us and a year hence I feel sure that there will be a marked increased of membership and therefore of interest.

This is a rural and small town section of our great commonwealth and the physicians seem to have felt the depression markedly.

We will continue to be diligent in our efforts. I beg to be,

L. L. Minor,
Councilor, Second District.

REPORT OF COUNCILOR, FOURTH DISTRICT.

The President and House of Delegates, Mississippi State Medical Association:

I hand you herewith my report as Councilor for the fourth district. I have visited five of the seven counties in the district. On July 6 made talk at Lexington, on October 5 one at Eupora, and on January 20 at Kosciusko.

The number of registered physicians in the several counties with membership in our local and State Association is as follows:

	Physicians	Members
Attala County	22	3
Carroll	9	3
Choctaw	9	1
Grenada	10	7
Holmes	27	9
Montgomery	12	7
Webster	12	3

101 33

Owing to discrepancy in figures I am unable

to figure the exact percentage of membership, but an average of the counties for the district will run very near 75.

I hope to give you a better report on the ensuing year.

T. I. Brown,
Councilor Fourth District.

REPORT OF COUNCILOR, FIFTH DISTRICT.

To the House of Delegates, Mississippi State Medical Association.

This district is divided into three societies—Central, Issaquena-Sharkey-Warren, and Claiborne has a society, but not active.

Central Medical Society is composed of the following Counties: Hinds, Madison, Rankin, Scott, Simpson and Yazoo. Dr. Julius Crisler is the President and Dr. Robbin Harris is Secretary.

This Society had a paid-up membership of 107 on April 1. There are 168 doctors in the counties comprising this Society with 107 members, or 63 2-3 per cent of the available men belong to organized medicine. It holds regular monthly meeting with about 50 per cent of its membership in attendance. This Society has not failed to carry out a prearranged program in a number of years.

During the year this Society has suffered the death of one member, Dr. W. W. Smithson. There has been four law suits filed against members of this Society.

The Issaquena-Sharkey-Warren County Medical Society is composed of the three counties hyphenated. Dr. H. S. Goodman of Cary is President and Dr. Leon S. Lippincott is Secretary.

This society had a paid-up membership of 40 on April 1. There are 60 resident doctors in the area represented by this Society, or 66 2-3 per cent are members of organized medicine.

It holds a regular monthly meeting with a well arranged program. This Society has suffered the loss of one member by death, Dr. T. A. Heath of Issaquena County. So far as I know there has been no lawsuit filed against a member of the Society.

N. B.—Issaquena County has a special distinction of being the 100 per cent county of the district.

Claiborne County has a Society. Practically in name only. They hold no regular meetings. Only meet to elect officers and collect dues. There are eleven doctors in the county, according to the roster, and seven are members of the Society, or practically 54 per cent of the resident doctors of the county.

Summing up you will note there are 237 doctors in this district; 154 are members of the State Medical Association, or 64 per cent. In other words, more than one-third of the medical men

in this district take no part in organized medicine.

W. H. Watson,
Councilor, Fifth District.

REPORT OF COUNCILOR, SEVENTH DISTRICT.

As Councilor for the seventh district, I am glad to report that although the depression has caused a slump in every line of work, we of the seventh district are about holding our own. My district has two Medical Societies: The South Mississippi and Clark-Wayne. The South Mississippi Society is composed of the following counties: Jones, Jasper, Lamar, Forrest, Perry, Greene, George Covington, Pearl River, Marion, Jefferson Davis, and Smith.

We hold our meetings quarterly the program beginning at 3:30 and continuing until 6:30, when lunch is served, and after which we continue until the program is completed. These meetings are usually well attended and it gives me pleasure to say that the Program Committee arranges most excellent scientific papers. It was our pleasure to have Dr. J. R. McCord, Professor of Obstetrics in Emory University, with us five days last August, and the meetings were well attended. Some of the physicians driving as far as 85 miles every day to attend these meetings and the doctors were very profuse in their praises of the splendid work being done by Dr. McCord. At our last meeting, in Laurel, we were favored with visits from Dr. Mull and our President, Dr. Culley, both of whom made inspiring addresses which were very much appreciated.

So far as I know we have no lawsuits pending against any physicians in our Society and I am indeed glad to say the fraternal spirit is most encouraging, and the broad-minded physicians are learning that we do not build our practice by condemning the other fellow.

The Wayne-Clarke Society is inactive, and although I have made several efforts to affect a dissolution of this Society, letting Wayne come to South Mississippi and Clarke go to East Mississippi, so far I have failed. However, so far as I can tell there seems to be no opposition to this move and I feel that we can get it through before our next Medical meeting.

Jos. E. Green,
Councilor, Seventh District.

REPORT OF COUNCILOR, NINTH DISTRICT.

The Ninth District is composed of Jackson, Harrison, Stone and Hancock Counties.

The Jackson County Medical Society has had four regular quarterly meetings with good programs and attendance during the past year. There are three doctors in the County who are not members. The other three Counties, Harrison,

Stone, Hancock, are organized into one Society with regular meetings which are held on the first Wednesday of each month with good programs and well attended. The membership consists of all desirable doctors in the Counties.

Daniel J. Williams,
Councilor Ninth District.

REPORT OF THE COMMITTEE ON PUBLICATION.

To the President and House of Delegates of the Mississippi State Medical Association.

In the past eleven months, your Committee on Publication has continued its efforts to make Mississippi's share of the New Orleans Medical and Surgical Journal worthy of this Association and of the greatest possible interest to all of its members.

Recognizing that our Journal is the official organ of the Louisiana State Medical Society and the Orleans Parish Medical Society as well as of the Mississippi State Medical Association, the comparative space devoted to Mississippi seems creditable.

The total number of scientific papers published was 87. Of this number 32 (37 per cent) were by Mississippi authors. The total pages devoted to scientific papers was 502. Of these 116 pages (23 per cent) were given to Mississippi authors. The total pages devoted to hospital transactions was 58. Of these, 35 pages (60 per cent) were devoted to Mississippi hospitals. The total pages devoted to news of the Louisiana State Society was 60. The total pages devoted to news of our own association was 151.

The papers read before the Mississippi State Medical Association at its annual meeting are published provided they comply with the rules. Papers from county societies are published when they furnish a contribution to scientific medicine. Many papers that bring about worthwhile discussion in local society meetings are not suitable for publication in a state journal. Such papers as are original or the result of work done to prove or disprove theory or practice are desirable and we ask that they be submitted for publication.

It is again urged that hospitals send in abstracts of interesting cases presented at staff meetings. If a case is worth reporting to a hospital staff, it will also be of interest to other hospital people and to others who do not have the advantages of hospital staff membership. Items of news in regard to staff meetings are also desirable.

Last year we attempted to organize a board of county editors and asked the presidents of county societies to appoint editors for all coun-

ties of the state. We are grateful for the co-operation of those presidents who complied with our request. We now have sixty county editors. The presidents of societies comprising 22 counties have not responded to repeated requests for appointments. It is the duty of a county editor to send in news of medical interest each month. Acknowledgment is made to those editors who have helped to make our journal this year. The following comprise the present board and the numbers after the names indicate the number of months in which items were received:

County	Editors	Months Items Recd
Adams.....	L. Wallin	8
Alcorn.....	W. A. Johns*.....	1
Amite.....	P. Jackson	1
Attala.....	C. A. Pender.....	2
Benton.....	F. Ferrell	None
Bolivar.....	C. W. Patterson*.....	4
Calhoun.....	F. L. McGauhy.....	None
Carroll.....	J. P. T. Stevens.....	None
Chickasaw.....	W. C. Walker.....	1
Choctaw.....	J. J. James.....	3
Hancock.....	C. M. Shipp.....	None
Harrison.....	C. McCall.....	2
Hinds.....	A. G. Wilde	None
Holmes.....	R. C. Elmore.....	None
Humphreys.....	G. M. Barnes*.....	1
Issaquena.....	W. H. Scudder.....	3
Ittawamba.....	W. L. Orr*.....	1
Jackson.....	B. S. McIlwain.....	5
Jasper.....	No editor	
Jefferson.....	R. B. Harper.....	None
Jefferson Davis	No editor	
Jones.....	No editor	
Kemper.....	No editor	
Lafayette.....	E. S. Bramlett*.....	None
Lamar.....	No editor	
Lauderdale.....	C. T. Burt.....	3
Lawrence.....	B. S. Waller.....	None
Leake.....	No editor	
Lee.....	W. A. Toomer*.....	None
Leflore.....	W. B. Dickens*.....	4
Lincoln.....	W. H. Frizell.....	3
Lowndes.....	J. W. Lipscomb.....	2
Madison.....	A. P. Durfey.....	3
Marion.....	No editor	
Marshall.....	D. R. Moore.....	None
Monroe.....	G. S. Bryan.....	10
Montgomery.....	J. O. Ringold*.....	1
Neshoba.....	J. S. Hickman.....	4
Newton.....	S. A. Majure.....	1
Nuxabee.....	E. M. Murphy*.....	None
Oktibbeha.....	H. L. Scales.....	1
Panola.....	G. H. Woods.....	2
Pearl River.....	No editor	
Perry.....	No editor	

Pike.....	T. Paul Haney Jr.*	3
Pontotoc.....	R. P. Donaldson.....	10
Prentiss.....	R. B. Cunningham.....	2
Quitman.....	No editor	
Rankin.....	H. N. Holyfield.....	None
Scott.....	W. C. Anderson.....	None
Sharkey.....	W. C. Pool.....	4
Simpson.....	No editor	
Smith.....	No editor	
Stone.....	S. E. Dunlap	None
Sunflower.....	R. M. Donald*.....	None
Tallahatchie.....	No editor	
Tate.....	W. D. Smith.....	1
Tippah.....	C. M. Murry.....	1
Tishomingo.....	A. E. Bostwick*.....	2
Tunica.....	No editor	
Union.....	H. P. Boswell.....	None
Walthall.....	B. L. Crawford.....	None
Warren.....	E. H. Jones.....	10
Washington.....	F. M. Acree*.....	2
Wayne.....	No editor	
Webster.....	W. H. Curry.....	4
Wilkinson.....	S. E. Field.....	1
Winston.....	M. L. Montgomery.....	8
Yalobusha.....	G. A. Brown.....	None
Yazoo.....	C. M. Coker	6

*Appointed during the year; have not served full eleven months.

HONOR ROLL.

Your committee appreciate the interest and co-operation of the following who have contributed to the hospital transactions or the Mississippi news during the year; some have contributed monthly, others less often:

Acker, J. M.; Ackerman, J. J.; Acree, F. M.; Barnes, G. M.; Bell, Mrs. Ada A.; Bennett, T. L.; Birchett, J. A. K., Jr.; Bramlett, E. S.; Brown, T. J.; Brumfield, R. H.; Bryan G. S.; Burns, E. B.; Burt, C. T.; Coker, C. M.; Comack, K. R.; Clark, L. J.; Cooper, S. W.; Crofford, T. J.; Crawford, W. H.; Culley, J. C.; Culpepper, J. P.; Cunningham, R. B.; Curry, W. H.; Dickens, W. B.; Dicks, J. W. D.; Donaldson, R. P.; Dotson, L. M.; Durfey, F. P.; Dye, T. M.; Eason, S. E.; Fairfax, H. R.; Field, S. E.; Finlay, R. C.; Frizell, W. H.; Galloway, D. V.; Gamble, H. A.; Gaudet, L. S.; Gill, W. G.; Green, J. E.; Hagan, Z. C.; Haralson, H. H.; Hickman, J. S.; Holmes, T. W.; Howard, E. F.; Hughes, W. L.; Jackson, Paul; James, J.; Jarratt, G. C.; Jenkins, W. N.; Johns, W. A.; Johnston, S. W.; Jones, D. W.; Jones, Mrs. E. H.; Jones, E. H.; Knox, I. C.; Lipscomb, J. W.; Little, A. H.; Little, W. L.; Lucas, J. W.; McCall, C. H.; McCarthy, A. M.; McCrae, K. P.; McLlwin, S. B.; McLeod, H. C.; McRae, K. F.; McRae, W. W.; Majure, A. L.; Majure, S. A.; Martin, B. B.; Martin, V. B.;

Minor, L. L.; Montgomery, D. E.; Montgomery, M. L.; Morris, K. A.; Moss, Mrs. Grace M.; Murry, C. M.; Nannery, N. W. Newcomb, J. W.; Page, A. G.; Parsons, W. H.; Patterson, C. W.; Pender, C. A.; Philpot, V. B.; Polk, Mrs. L. L.; Pool, W. C.; Price, L. B.; Rapt, J. M.; Rayburn, J. A.; Robertson, M. W.; Ross, T. E., Jr.; Rush, H. L. Rutledge, L. J.; Scales, H. L.; Scudder, W. H.; Smith, F. M.; Smith, W. D.; Speck, C. M.; Spencer, J. L.; Stennis, Dudley; Stennis, I. E.; Stephenson, R. M.; Stowers, W. K.; Strain, S. F.; Street, A.; Street, G. M.; Tillman, A. G.; Ullman, J. S.; Underwood, F. J.; Wallin, L.; Walker, William Ware, A. J.; Watson, W. H.; Wilkins, E. L.; Wilson, D. L.; Williams, Mrs. Dan; Woods, G. H.—112.

Last year it was suggested at a meeting of editors of state medical journals that in an ideal state journal all reports of officers and committees of the State Medical Association should be published before the annual meeting in order that the membership at large and especially the delegates should know in advance what was to be presented and thus be given time for thoughtful consideration to such matters as they should be called upon to decide. We published a few such reports last year. We published more this year. We ask that all reports be furnished for publication next year. We believe such publication will work for more mature and intelligent judgment.

Many organization require that any resolution having to do with policy or proposed activities shall be published in advance. The reasons for such requirements are the same as for reports. It is recommended that such resolutions to be presented to this Association be published before the meeting.

Every year there are numerous controversial subjects before the medical profession of our state. We would all be better able to form intelligent opinions if such subject were freely discussed in the Journal. We offer you the opportunity and urge its acceptance.

Finally your Publication Committee is conscientiously working to give you a journal of general interest. Suggestions and criticisms are always welcome. The New Orleans Medical and Surgical Journal is your journal. It should express your ideas of medicine. We ask your continued and further support.

Leon S. Lippincott,
D. W. Jones,
J. S. Ullman,

Committee.

RESOLUTIONS CONCERNING FOOD FADDISM.

WHEREAS: Much misinformation is promulgated today concerning the question of diets, thus causing the introduction of food fads, very few of which can take the place of the older staple foods; and whereas,

Any balanced diet should contain animal protein, fruit, vegetables, especially the leafy vegetables, and the better grades of bread prepared from flour which will insure adequate vitamin and mineral salt content, digestible fat such as butter-fat, and sufficient of the digestible carbohydrates to afford readily available energy; and whereas,

The allegation that white bread, meat or any other staple food, when employed in mixed diet is responsible for certain grave illnesses, is not supported by scientific facts.

THEREFORE BE IT RESOLVED THAT:

We desire in the public interest to place on record that in our opinion:

1. The exaggerated claims for various fad foods are unwarranted by scientific evidence or practical experience; and the advertising and other propaganda furthering their substitution for the older articles of diet should be condemned.

3. The danger of nutritional deficiencies has been grossly exaggerated. No one food is a perfect food; but a diet consisting of dairy products, leafy vegetables, fruits, meats and easily digested starches furnishes an excess of all food factors necessary for proper growth and nutrition and resistance to disease.

3. Any variation from a normal diet should be prescribed only by a properly trained physician after a careful study of the dietary requirements of the individual seeking advice.

SALES TAX.

Whereas, industries, professions and governments are keenly feeling the financial stress of these hazardous times, and all forces are being brought to bear to restore confidence in private and public relations, a trust, so essential to the well-being of all, and

Whereas, our altered circumstances and the urgency of balancing the budget, both public and private, call for heroic measures, and

Whereas, recognizing the fact that a fundamental prerogative of Government is its power of taxation, still the fact remains that such taxation should be just, equitable and non-discriminating, and

Whereas, the medical profession has nothing to sell except its services to the needy, regardless of whether the purchaser is able to pay for such services, yet at all times the medical pro-

fession stands ready to give of its time, labor and thought, never questioning ones' ability to pay, rather considering the opportunity to serve those who need their care, in this respect differing from other classes of people, prominent in our civic life, namely, the banker, the school teacher and governmental employee, who demands and receives his compensation, and

Whereas, in the proposed Sales Tax, now under consideration by the Mississippi State Legislature, the clause referable to those, who pay a privilege tax, and this includes the medical profession, would work an injustice to and impose a discriminating burden upon an already heavily laden medical profession, therefore,

Be it resolved by the House of Delegates of the Mississippi State Medical Association, in annual session in Jackson, Mississippi, this fourteenth day of April 1932, that the enactment of the clause of the proposed Sales Tax as now written relative to physicians and surgeons would work an unwarranted burden on the medical profession, and that the Mississippi State Legislature is hereby respectfully petitioned to exempt the medical profession from the operation of the aforesaid law for the reasons as set out above.

Be it resolved further that if the legislature will place this tax on others equally or better able to pay, such as all state and county and municipal officials, such as heads of public schools, bankers, etc., that we the medical profession will gladly concur and endorse the proposed tax.

HONORARY MEMBERS.

The following were elected to honorary membership in the Mississippi State Medical Association at its recent meeting:

W. G. Kiger, Brunswick, proposed by the Issaquena-Sharkey-Warren Counties Medical Society.

J. T. Butler, Brookhaven, proposed by the Tri-County Medical Society.

Dr. Kiger is the oldest living past president of the association in point of service, he having held office for the year 1892-93.

PROPOSED CHANGES IN LAW RELATING TO PHYSICIANS IN CIVIL ACTIONS.

A licensed physician or surgeon can not, without the consent of his patient, be examined in a civil action as to any information acquired in attending the patient, which was necessary to enable him to prescribe or act for the patient; provided, that where any person brings an action to recover damages for personal injuries, such action shall be deemed to constitute a consent

by the person bringing such action that any physician who has prescribed for or treated said person and whose testimony is material in said action shall testify.

When negligence and incompetence on the part of the plaintiffs' physician is charged, plaintiff shall be required to show wherein such physician was negligent, and the physician shall be permitted to take the stand in his own behalf.

Referred to the Committee on Public Policy and Legislation.

GREETINGS.

To the Mississippi State Medical Association from the Mississippi State Hospital Association.

GREETINGS.

Resolution: Whereas, the Mississippi State Hospital Association in session assembled April 11, 1932 did enjoy the fellowship, the cooperation, privileges and benefits of meeting with and at the time of the Mississippi State Medical Association, and

Whereas, we are cognizant of the benefits and privileges of a joint meeting,

Therefore, be it resolved that the Mississippi State Hospital Association does hereby extend to the Mississippi State Medical Association its expressions of thanks and gratitude for the courtesies of this valuable contact and convey to them our sincere appreciation and pledge to them our unflinching loyalty, cooperation and best efforts in our future endeavors to improve the Hospitals for the Doctors, Patients, and Nurses of the State of Mississippi.

J. Gould Gardner, President.

V. B. Philpot,

W. H. Frizell, Committee.

MISSISSIPPI STATE MEDICAL ASSOCIATION. IN MEMORIAM.

George W. Barlow, Lake; May 14, 1931; age 63.

D. P. Butler, McCall Creek; January 13, 1932; age 61.

L. D. Dickerson, McComb; June 4, 1931; age 62.

J. A. Dilworth, Aberdeen; November 12, 1931; age 70.

William T. Duke, Glen Allen; July 23, 1931; age 41.

W. G. Gill, Newton; August 20, 1931; age 49.

L. L. Greer, McComb; July 11, 1931; age 50.

T. A. Heath, Shiloh; January 18, 1932; age 75.

J. W. Henderson, Clarksdale; September 10, 1931; age 54.

R. E. Higdon, Brookhaven; January 24, 1932; age 59.

D. R. Lamb, Artesia; May 25, 1931; age 51.

E. C. Lucas, Ebenezer; January 9, 1932, age 71.

W. B. Martin, Indianola; November 23, 1931; age 73.

G. D. Mason, Lumberton; April 26, 1931; age 43.

V. W. Maxwell, Gulfport; June 26, 1931; age 40.

G. A. McHenry, McHenry; October 12, 1931.

J. B. Sims, Aberdeen; May 10, 1931; age 70.

W. W. Smithson, Jackson; September 9, 1931; age 56.

J. C. Vandiver, Baldwin; June 9, 1931; age 48.

I. T. Woodruff, Batesville; July 11, 1931; age 60.

CANCER CONTROL.

Note—Relative to procedure before "The Proposed Five Year Program of Cancer Control" can be put into operation:

1. The final decision as to the desirability of the Medical Profession of Mississippi, not only becoming identified with, but in fact leaders of the Cancer Control Program rests with the State Medical Society.

The Mississippi Cancer Commission, composed of Doctors Underwood, Shands, and Cranford appointed by the Governor to study and report on the cancer problem in Mississippi are members of the State Medical Society. It is their earnest desire to carry out the expressed wishes of this Society.

To this end, The Cancer Commission of Mississippi submits through the Cancer Committee of the State Medical Society the following "Proposed Five Year Program of Cancer Control," and respectively requests such changes and modifications as may be considered advisable by the State Medical Society.

1st Endorsement:

The Cancer Committee of the State Medical Society as represented by the following members have considered the "Proposed Five Year Program." After making certain modifications of the original program, this Committee recommends it for approval:

Modifications and Changes Recommended:

2nd Endorsement:

Approval, modification or disapproval by the President of the State Medical Society.

3rd Endorsement:

Approval, modification or disapproval by the incoming President.

4th Endorsement:

Approval, modification or disapproval by Dr. Mull.

5th Endorsement:

Approval, modification or disapproval by Secretary of State Medical Society.

6th Endorsement:

Approval, modification or disapproval by the Councilors of State Medical Society.

2. The Cancer Committee of the State Medical Society should be more or less permanent in character.

A portion of its membership should be appointed each year for a period of five years in order that the experience and efficiency of the Committee be not impaired.

PROPOSED FIVE YEAR PROGRAM FOR CANCER CONTROL.

I. Chairman of Cancer Committee of State Medical Society.

Outline of Activities of Committee:

(A) Medical approach:

1. Stimulate interest in cancer program among physicians through:

- a. Distributing medical abstracts and reprints.
- b. Publishing articles in medical journals on cancer sending out reprints on request.
- c. Arranging cancer programs for state medical society meetings, also district and county.
- d. Arranging cancer symposiums and clinic demonstrations.

e. Encouraging greater emphasis on cancer in medical school courses.

f. Having questions on cancer inserted in medical examinations.

g. Showing cancer films in medical groups and loaning same to doctors.

h. Assembling good slide collection and loaning same.

2. Encourage the establishment of clinics in general hospitals through:

a. Cooperation with hospital authorities. Refer to A. S. C. S. booklets and standards. Aiding in reorganization of hospital facilities and staff in order to establish clinic. Help in raising funds for equipment, etc.

b. Clinic demonstrations in cooperation with hospitals.

3. Encourage the improvement of existing facilities through:

a. Writing articles in medical journals calling attention to needs.

b. Stimulating gifts of money for radium, new equipment, etc.

c. Appeal to legislature for funds.

4. Encourage postgraduate work among physicians through:

a. Short courses in clinics on various phases of cancer therapy (Bloodgood type. Refer to his experience and program).

b. Offer scholarships and fellowships to outstanding men.

c. Offer prizes to interns for best work in cancer.

5. Stimulate interest in nursing groups in cancer through:

a. Distributing booklets on cancer to graduating nurses.

b. Articles in nursing magazines.

c. Distributing reprints on cancer.

d. Securing greater emphasis on cancer in nurses training courses.

e. Having questions on cancer inserted in examination questions for nursing diplomas.

(B) Medical and lay approach.

1. Appoint speakers bureau with services of lectures for lay groups and medical groups alike.

a. Radio talks by physicians.

(C) General Duties.

1. Appoint local, county and district representatives.

2. Approach dentists through:

a. Meetings.

b. Distribution of abstracts and reprints and booklets.

c. Articles in dental journals.

3. Stimulation of adequate pathological service for physicians and hospitals.

II. State Health Officer.

Outline of Activities:

(A) Stimulate interest in cancer among health officials and workers by:

1. Distribution of statistical material to health officials.

2. Articles in state and city health bulletins.

3. Conferences of health officers.

4. Distribution of reprints on cancer.

5. Invitation of health officers to attend clinical demonstrations and symposiums.

6. Distribution of lectures for use of public health officers.

7. Distribution of booklet, "What Public Health Officials Can Do About Cancer." (A. P. H. A., rewritten.)

(B) Stimulate interest in securing cancer morbidity law. Cancer a reportable disease.

1. Distribution of information as to incidence of cancer mortality and morbidity, economic loss, etc. Distribution of reprints on need for reporting cancer. Articles in health bulletins on difficulty of accurate statistics.

(C) Extension of state nursing service.

1. Check up contents of nurses training courses.

2. Include questions on cancer in examinations.

(D) Cooperate with state medical society chairman and A. S. C. C. man.

1. From joint speakers bureau, services for lay and medical groups.

(E) Appoint local representative in each city and county and

1. Distribute literature, posters, etc. to him with instructions and prepared lectures, news releases, etc.

(F) Actively engage in lay education in cooperation with A. S. C. C. Representative through:

1. Radio talks.
2. Lectures.
3. Distribution of booklets and bulletins.
4. Films, etc., etc.

III. A. S. C. C. State Chairman.

Outline of Activities:

(A) Stimulate interest in cancer among laity and medical groups in cooperation with other tri-partite members especially in local places. This through:

1. Lectures to clubs, civic organizations, factories and industrial plants, large groups of workers, dentists, nurses, teachers, etc.

2. Distribution of literature sent from home office.

3. Acting as general information bureau.

4. Distribution of medical reprints and abstracts.

5. Cooperation with others in exhibits and speakers bureau.

(B) Cooperation with I and II.

(C) Yearly report of activities.

(D) Appoint local representative in each county and city whose duty shall be to cooperate with the representative appointed by the State Health Officer and by the Chairman of the Cancer Committee of the State Medical Society. This nucleus of three to carry into effect locally the program adopted by the State tri-partite group.

(E) It is definitely understood by the A. S. C. C. that cancer control is a problem of the Medical Profession of Mississippi and that the activities of the National Society will be limited to those delegated to it by the State Medical Society.

Recommendation:

That the cancer control program for the first year or two be limited to activities within the medical profession.

WOMEN'S AUXILIARY OF THE MISSISSIPPI STATE MEDICAL ASSOCIATION.

The Women's Auxiliary of the Mississippi State Medical Association has just closed a very successful meeting held in Jackson, at the Robert E. Lee Hotel.

Tuesday was given over to meetings of the Executive Board and the various committees, with a reception and dance in the roof garden

of the Robert E. Lee Hotel to the members of the Auxiliary and Medical Association after the general meeting on Tuesday night with the Central Medical Society and its Auxiliary as the host and hostess groups.

On Wednesday morning in addition to the regular order of business the Auxiliary was addressed by Dr. J. C. Culley, and Dr. J. M. Acker, president and president-elect of the Medical Association, also Dr. W. W. Crawford of Hattiesburg.

Mrs. Charles E. Oats was honor guest at the luncheon at the University Club given the Auxiliary members by the Auxiliary of the Central Medical Society. Mrs. James Franklin and Mrs. T. W. Woodward, both outstanding members of local musical circles, presented a series of voice and piano numbers for the occasion, at which Mrs. Adna G. Wilde graciously presided.

A most delightful tea was given to members of the Central and State Auxiliaries by Mrs. W. B. Dobson in her beautiful home.

Thursday morning was given to routine business which resulted in the adoption of a resolution for the appointment of a Jane Todd Crawford committee to co-operate with the committee for the same cause of the Auxiliary of the A. M. A. The following officers were elected:

President—Mrs. W. C. Pool, Cary, Miss. This was necessary because of the much regretted resignation of Mrs. Henry Boswell, president-elect.

President-elect—Mrs. F. L. Van Alstine, Jackson, Miss.

First Vice-President—Mrs. J. M. Acker, Jr., Aberdeen, Miss.

Second Vice-President—Mrs. Henry Boswell, Sanitorium, Miss.

Third Vice-President—Mrs. Ledoy Wilkins, Clarksdale, Miss.

Fourth Vice-President—Mrs. Estes Blount, Bassfield, Miss.

Recording Secretary—Mrs. Adna G. Wilde, Jackson, Miss.

Parliamentarian—Mrs. D. J. Williams, Gulfport, Miss.

Historian—Mrs. M. H. Bell, Vicksburg, Miss.

Councilors—First district, Mrs. H. L. Cockerham, Gunnison, Miss.; second district, Mrs. J. C. Culley Oxford, Miss.; third district, Mrs. D. E. Staton, Columbus, Miss.; fourth district, Mrs. W. H. Curry, Eupora, Miss.; fifth district, Mrs. J. A. K. Birchett, Jr., Vicksburg, Miss.; sixth district, Mrs. W. S. Gill, Newton, Miss.; seventh district, Mrs. L. L. Polk, Purvis, Miss.; eighth district, Mrs. L. O. Gaudet, Natchez, Miss.; ninth district, Dr. Emma Gay, Gulfport, Miss.

Mrs. F. L. Van Alstine.

MISSISSIPPI STATE HOSPITAL ASSOCIATION.

The fourth annual session of the Mississippi State Hospital Association was held at the Edwards Hotel, Jackson, on Monday, April 11, with an attendance of seventy. Dr. Leon S. Lippincott, Vicksburg, presided as president.

The report of the Secretary-Treasurer, Dr. C. M. Speck, New Albany, showed an institutional membership of 46 hospitals.

The committee reports were received as follows:

Committee on Charity Hospitals, Dr. B. B. Martin, Vicksburg, chairman; Committee on Co-operative Buying, W. Hamilton Crawford, Hattiesburg, chairman; Committee on Collection of Accounts, G. D. Stanley, Greenville, chairman, by W. Hamilton Crawford; on Constitution and Rules, Dr. J. S. Ullman, Natchez, chairman; Committee on Community Hospitals of the Mississippi State Medical Association, Dr. V. B. Philpot, Houston, chairman; the Committee on Legislation, Dr. W. W. Crawford, Hattiesburg, chairman, by W. Hamilton Crawford.

Papers and discussions:

PERSONNEL.

Should the Salary and Labor Scale be Reduced?

(a) If So, How Can the Hospital be Assured of Efficiency?

Speaker, Dr. W. J. Anderson, Meridian.

Discussion opened by H. Ogden, Hattiesburg.

REVENUE.

Should Hospital Rates be Reduced to Meet the Present Economic Conditions?

Speaker, Dr. J. Gould Gardner, Columbia.

Discussion opened by Dr. W. H. Frizell, Brookhaven.

Reduced Production Cost Affected by New Economics.

Speaker, Dr. John C. Culley, Oxford.

Discussion opened by Dr. J. A. Rayburn, Natchez.

What Are We Doing to Increase Our Collection Efficiency?

Speaker, Mrs. Karenza Gilfoy, Jackson.

Discussion opened by Rev. Wayne Alliston, Jackson.

The Future of the Training School in Mississippi.

Speaker, Miss Mary H. Trigg, R. N., Greenwood.

Discussion opened by Miss Mary E. Dorsay, R. N., Greenville.

As recommended by the President, a Committee on Minimum Standards and a Committee on Nurses and Nursing were authorized. The publication of a quarterly bulletin was decided upon.

Dr. W. C. Walker of Houlika was unanimously elected an honorary member of the Association.

The incoming President was authorized to attend the joint meeting of the State Hospital Asso-

ciations of Tennessee, Arkansas and Kentucky, at Memphis, on April 18 and 19.

The incoming Vice-President was authorized to attend the meeting of the State Hospital Association officers at the headquarters of the American Hospital Association, in February, as representative of this Association.

The election of officers for the year of 1932-33 resulted as follows:

President—Dr. J. Gould Gardner, Columbia.

Vice-President—Dr. R. J. Field, Centreville.

Secretary-Treasurer—Dr. Leon S. Lippincott, Vicksburg.

Members of the Board of Directors—Dr. John C. Culley, Oxford; Dr. V. B. Philpot, Houston.

The annual banquet was held in the evening at 6:45 o'clock, with Dr. Felix J. Underwood, Jackson, toastmaster.

The address of the evening "How to Be Saved," was delivered by Mr. Will Ross, Milwaukee, Wisconsin.

Other speakers were Dr. W. S. Leathers, Dean of Vanderbilt University, School of Medicine, Nashville, Tennessee, and Dr. John C. Culley, Oxford, President of the Mississippi State Medical Association. Dr. Culley introduced the new President, Dr. J. Gould Gardner.

Dr. Gardner asked for support and pledged best efforts in making the coming year the Association's best.

The next meeting of the Association will be held in conjunction with the meeting of the Mississippi State Medical Association, at Jackson, on Monday, April 10, 1933.

MISSISSIPPI STATE HOSPITAL ASSOCIATION ANNUAL MEETING, APRIL 11, 1932, JACKSON, MISSISSIPPI.

PRESIDENT'S ADDRESS.

This annual meeting marks the close of my official relations with this Association. I am grateful for the confidence you have imposed in me, and to Dr. Speck, our Secretary, to Mr. Crawford, the young father of this Association, and to all of you who have given splendid assistance and co-operation. My connection however, with the affairs of the Association, I shall hope to continue, for I am convinced that this organization can do much for the people of Mississippi as well as for our hospitals.

Your committee has prepared for you a program of worthwhile topics, to be presented by those who know. We sincerely trust that you will all enter into the spirit of service which the subjects suggest and join in the discussions, with the same interest your speakers have shown in the preparation of their papers. We all have our problems. Many of them are similar. Some of us may have solved them better than others. It is our opportunity to give and receive. This

is my special invitation to each one of you to avail yourself of the privileges of the floor which are cordially extended.

Early in our Association year we were saddened and handicapped by the loss of an earnest worker and one whom we had expected to lead us in the year to come—our Vice-President, Dr. L. D. Dickerson of McComb, who died on June 4, 1931. I ask that you stand for a minute of silent prayer in his memory.

During the past year, we believe the Association has made some progress in several directions. First and foremost we have been able to enlist in our cause 23 hospitals not before affiliated. From an institutional membership of 21 at our last meeting, we have now 44. There are 76 hospitals in Mississippi listed in the directory of the American Medical Association; several hospitals are not listed. Of the 76, eight are listed under the classification of "nursing home, school or prison infirmary, or other institution giving some medical, nursing or convalescent care in an ethical and acceptable manner, but not strictly a hospital." None of these have seen fit to become members of our Association. There are five state institutions other than charity hospitals, none of which have enrolled, mostly, as explained by their heads, because their boards would not allow the membership dues. There are five state charity hospitals, two of which are members. There is one United States Veterans' Hospital, which has replied to no correspondence. There are two negro hospitals.

Mississippi hospitals are, in general, comparatively small institutions. Only 10 have more than 100 beds, and those are all State or Government institutions. There are 19 hospitals with less than 25 beds, of which seven are members of the Association. Some of these smaller hospitals have told me frankly that they could not pay the \$10.00 membership dues. To be of most service the Association should have enrolled every hospital in the State. Any good that is accomplished brings benefits to all hospitals. All hospitals should have a part in its work. I am wondering if it would not be well to make the dues of hospitals of less than 25 beds \$5.00 a year instead of \$10.00, and I submit the thought for your consideration.

PERSONAL MEMBERSHIP.

It is the opinion of your President that in the coming year a drive should be made to interest and enroll besides institutional members, personal, active and associate members. These could include many persons directly or indirectly interested in hospitals and would give strength as well as bring in more funds with which to work.

CONSTITUTION AND BY-LAWS.

We found early in the year that our present Constitution and By-Laws were not specific and were inadequate. Your Committee on Constitu-

tion and Rules will recommend at this session numerous changes for your consideration and approval. The suggested changes are in conformity with the Constitution and By-Laws of the American Hospital Association.

MINIMUM STANDARDS.

Last year, I recommended a minimum standard for institutional membership in this Association. Again, I wish to urge the adoption of such a standard. Membership in this Association should be a badge of merit and a guarantee of good standing. Such a standard would add much to the prestige of the organization. A more or less elastic routine of high standards of operation and service will make itself known and felt throughout the state to the extent that even the poorest hospital will begin to follow the examples set or be forced out of business.

JOINT MEETINGS.

A joint meeting of the Tennessee, Arkansas, and Kentucky Hospital Association will be held in Memphis, Tennessee, on April 18 and 19. This Association was kindly invited to meet with them in place of our meeting today. It was our opinion that while such a joint meeting would be interesting and valuable to those who attended, it was probably better not to attempt it this year. We had agreed at the invitation of the Mississippi State Medical Association to hold our meeting this year on the day preceding the first day of the meeting of the Medical Association in order to avoid conflict and with the idea that we would get larger attendance than if we met at another time. If our meeting was held in Memphis, it would mean two trips for the doctors who attend the two meetings and under the present conditions it seemed very doubtful if we could secure a representative attendance. In my opinion the cordial relations now existing between the Mississippi State Medical Association and our Association are a great asset. Many of our hospitals are owned or conducted by doctors. All are used by doctors. We need each other.

We are now asked to send a representative to the joint meeting at Memphis. There is a movement to co-ordinate effort and perhaps revive the Southern Hospital Association. Your Board of Directors is in favor of sending a representative this year, and it should probably be your incoming President.

MEETING OF STATE HOSPITAL ASSOCIATION PRESIDENTS.

On February 15 to 17, your President, at the invitation of the American Hospital Association and of the American Medical Association, and with the permission of our Board of Directors, attended the meeting of the Presidents of State Hospital Associations and the annual meeting of the Council on Medical Education and Hospitals of the American Medical Association at Chicago.

The meeting of State Hospital Association Presidents was the first in the history of the American Hospital Association, and was decided upon at the Toronto meeting last fall on motion of our own Hamilton Crawford. It was attended by thirty representatives of hospital associates and groups and was so successful that all present were of the opinion that such a meeting should be held annually.

Much of the time of both groups was devoted to discussion of advisability of utilizing existing civilian hospital facilities for veterans rather than building further government hospitals. Representatives of the American Medical Association, including Secretary of the Interior, Dr. Ray Lyman Wilbur, the American Hospital Association, and the American Legion are working together and seem in accord in an attempt to work out a plan acceptable and to the best interests of all concerned. It is especially gratifying to us as hospital people that Mr. Paul H. Fesler, president of the American Hospital Association, has been chosen general chairman of the representative committee of the three organizations.

Such meetings give a broad outlook on hospital affairs in general and are well worth while. It is my recommendation that this association be represented at such meetings in the future, the representatives to be the vice-president of the Association.

NATIONAL HOSPITAL DAY.

For more than ten years, a National Hospital Day has been observed in many parts of the United States. So far as I know, little has been heretofore done in Mississippi to recognize this day which has meant much in understanding the good will to many institutions. May 12 is the day set for this year and every hospital is urged by the American Hospital Association to have a part in informing the public on that day of hospital problems, and aims and objects. Much has been said in recent months of the high costs of hospital care. To us who know something of the overhead expense of conducting a modern hospital, some of the statements published have seemed unfair. In the minds of some people, all hospitals are making their owners and all connected with them rich. Usually if people can be shown the facts, there comes understanding. National Hospital Day gives us that opportunity. Some of us may have hesitated to take part in the observance of this day for fear of being accused of advertising and unethical conduct. I hope that this association may allay that fear by going on record as approving plans as suggested by the American Hospital Association and urging its members to have an active part this year.

FINANCING THE ASSOCIATION.

The usefulness of our Association could be greatly extended if it had a larger income upon

which to count from year to year. The income from present sources does not permit of great expansion. The great amount of good which this Association could accomplish by aiding all the hospitals of the State and thus indirectly all the patients who enter our institutions, creates a possibility of rendering a real service to many people. If we can develop and offer to the hospital people of Mississippi a program that can demonstrate its usefulness, and at the same time give assurance that whatever funds are contributed will be properly administered, there will be few hospitals that cannot be interested. It is even conceivable that private philanthropy might see in this Association a desirable means of benefiting our State. Our best immediate opportunity is to make a great effort in the year to come to interest in membership not only hospitals but also members of board of trustees, members of the medical staffs of hospitals, the heads of executive, administrative and educational departments of hospitals, and contributors to or members of associations and boards having to do with the foundation, maintenance or improvement of hospitals or the promotion of organized charities for the improvement of health. All are eligible to active or associate personal membership. There is strength in numbers and the greater the membership the more general interest in the Association. Incidentally, dues for such membership, while small, will aid.

OFFICIAL PUBLICATION.

It has been the purpose of the Association since its inception to have an official publication to keep all members informed and interested. This should be issued at least quarterly, but preferably monthly. During the past year, your president has endeavored in some measure to meet this need by letters to members. At least eight such general letters have been sent out in addition to much correspondence. Space has also been given to Association matters in the New Orleans Medical and Surgical Journal.

It is my hope that in the coming year a definite publication policy may be inaugurated. An interested member is one who knows what is going on. Because of cost, a printed publication of our own may not be possible. If not, a regular mimeographed letter would do very well. The New Orleans Medical and Surgical Journal goes each month to each member of the Mississippi State Medical Association, and hence, probably to every hospital in the State. As editor for Mississippi, I see no reason why a page each month should not be devoted to this Association as hospital news.

NURSING.

Inseparable from the work and development of our hospitals is the nurse. There has been a great tendency, especially in recent years, to add to the

curriculum of our schools of nursing until in the opinion of many the courses in general education insisted upon are crowding out the essentials upon which the nursing profession was founded. Some of the institutions of the country feel that a Ph.D. degree is necessary. If the present tendency is extended, it is not difficult to see that in the not distant future there will be no one humble enough to do the actual nursing necessary to the recovery of patients. Most of our hospitals in Mississippi have less than 100 beds each. Many of them are in rural districts. The need for nurses is just as great in our hospitals as in Chicago or New York or Philadelphia, but the facilities for training them are much less extensive. Let us pick our student nurses because of their love of the work and the good they may do, nurses who are willing to give of themselves, nurses who will bring comfort and joy to our sick; let us not try to give them a general education in all the arts and sciences.

I recommend the appointment of a sympathetic committee that will make a study of the whole nursing problem in Mississippi, that will contact the State Board of Nursing Examiners, and that will work to bring about a satisfactory plan for the supplying of necessary service to our hospitals. We are more directly interested than any other body in the State with the exception of the nurses themselves. Nurses are made by the hospitals. Neither can stand alone.

Just a word in closing on the economic conditions with which we are faced. Many of our beds are unoccupied and many of us are wondering how we are to survive. But we all know that sooner or later prosperous times will again be with us. Such periods of trial are not without value. They teach us sober judgment. Calvin Coolidge has said, "The scraping of the hull of a ship of state is a trying ordeal for the barnacles." We shall all be better hospital administrators for the experience.

In a little country town in Arkansas it had been raining for a week. In a little country store sat an old man, whittling. A visitor approached. Said he, "It looks as if it was going to clear." Said the old man, without looking up "It always has."

Leon S. Lippincott.

TO THE MISSISSIPPI STATE HOSPITAL ASSOCIATION.

Whereas, it has pleased the Supreme Architect of the Universe to remove from the earthly sphere of his activities the Mississippi State Hospital Association's honored Vice-President, Dr. L. D. Dickerson; and,

Whereas, his untimely demise has brought sincere sorrow into the ranks of this Association and cut short his construction work begun;

Resolved that we express our sorrow and regrets, that we emulate his example of loyalty to his profession and ideals, and his charitable spirit, that we reverence his memory; and, further

That a copy of these resolutions be spread upon the minutes of this meeting, and a copy sent to the family of our departed brother.

Na cause based upon the care of the sick can ever be checked by financial depressions or business failures. A calling as old as the art of healing is the work of God; it will go on through the ages. It is for us to give to our work the best that is in us—to see that we pass on to those who follow us better hospitals.

W. H. Frizell,
M. D. Ratcliffe,
J. K. Avent,
Committee.

April 11, 1932.

ALCORN COUNTY.

Dr. M. H. McRae is again attending to his practice following an appendix operation last month.

Dr. J. A. Borroum, Memphis Hospital Medical College, class of 1894, died suddenly at his home in Corinth on April 2, 1932, of angina pectoris, aged 60 years. He practiced medicine only a few years. For the past thirty-five years he had devoted his full time to his drug business.

Mrs. C. F. Gilbert is singing over radio station W. M. C., Memphis, Tennessee, 15 minutes after 2 p. m. every other Saturday.

Mrs. J. R. Lanning is reported much improved after an extended visit to Dawson Springs, Kentucky. She expects to return April 14.

W. A. Jones, County Editor.

HARRISON-STONE-HANCOCK COUNTIES MEDICAL SOCIETY.

The April meeting of the Harrison-Stone-Hancock Counties Medical Society was held at the Biloxi Hospital, Wednesday, April 6, at 7:30 p. m. The scientific program included the following:

The Refraction Patient—Dr. W. A. Stevens.

Guests of the society were Dr. John B. Culley, President of the Mississippi State Medical Association, and Dr. Felix J. Underwood, Executive officer of the Mississippi State Board of Health.

Dr. C. M. Shipp, Bay St. Louis, is President of the society, and Dr. E. A. Trudeau, Biloxi, is secretary.

LEFLORE COUNTY.

We are glad to report that Dr. George Baskerville has recovered sufficiently to resume his practice after a month's illness. He was confined to the Greenwood-Leflore Hospital about 10 days with a severe streptococcic septicaemia following an ap-

parently trivial superficial abrasion on right hand as the original focus.

Dr. W. D. Wilson, Schlater, is happy over the arrival of his first grandson, W. D. Wilson, III, on April 3, 1932, at the Greenwood-Leflore Hospital.

W. B. Dickens County Editor.

COMMUNICABLE DISEASES.

For the month of February, 1932, the Bureau of Communicable Diseases of the Mississippi State Board of Health reports typhoid fever 32, smallpox 119, diphtheria 71, scarlet fever 42, pellagra 289, tuberculosis 97, per cent of physicians reporting, 98.7.

WEBSTER COUNTY.

The Winona District Medical society will meet at Ackermann sometime in May. The date and program will be announced later.

The roads to Ackerman are good and we are expecting a splendid attendance, and most especially so since the ladies of the churches have planned to give us a banquet.

Dr. J. D. Turner of Tupelo has moved to Eupora to take up the practice of medicine. To the surprise of the young folks he married Miss Helen Keirle of Bunker Hill, Illinois, on March 28.

Congratulations and the best of wishes for this young couple.

W. H. Curry, County Editor.

WINSTON COUNTY.

Dr. T. F. Kilpatrick is a member of the Government Feed Loan Committee and is doing some fine business.

Dr. H. B. Watkins made a business trip to Jackson this week.

Dr. W. W. Parks has been out of town. Not knowing where he was, we assumed he was out on a fishing excursion.

Dr. E. L. Richardson reports that times are too hard to get away from home at all, and it is an expense to stay at home.

We all hope that the legislature will balance the budget and let us see what will happen then.

We are fearful that the Charity Hospitals in Mississippi will be in a critical condition, since there will be so few that can be treated in pay hospitals in the near future.

M. L. Montgomery, County Editor.

PONTOTOC COUNTY.

News very scarce in this county.

Still have some smallpox. Have vaccinated about 1500, with a large percentage of takes.

Several of our doctors attended the staff meeting of the Houston Hospital and enjoyed an excellent paper by Dr. W. C. Walker of Houlka.

The next staff meeting will be the latter part of April.

Several of our doctors attended the meeting of the Mississippi State Medical Association at Jackson.

Tupelo Hospital is taking advantage of the dull times and is repairing the building.

Will see you again next month.

R. P. Donaldson, County Editor.

EAST MISSISSIPPI MEDICAL SOCIETY.

The East Mississippi Medical Society met on the mezzanine floor of the Lamar Hotel, Meridian, Thursday, April 21, at 3 p. m.

The program as announced by Dr. T. L. Bennett Secretary, was as follows:

1. Injection Treatment of Hemorrhoids.—Dr. W. B. Hickman, Louisville. Discussed by Drs. H. M. Robinson and R. G. Hand.

2. Meningitis.—Dr. D. L. Walker, Meridian. Discussed by Drs. T. D. Boudreaux and J. L. Parkes.

3. Aschaliasia of the Esophagus, with Presentation of Two Successfully Treated Cases.—Dr. Sidney K. Simon, New Orleans, Louisiana. Discussed by Drs. W. J. Coleman and H. L. Arnold.

PIKE COUNTY MEDICAL SOCIETY.

The Pike County Medical Society held its first "Clinical Day" program in McComb on March 3. This took the place of the regular monthly meeting.

Dr. Charles Bloom of New Orleans was our guest-speaker and in the afternoon held a most interesting pediatric clinic. A large variety of cases was presented by Dr. Bloom at the afternoon session, which proved to be most instructive to all present.

At the McColgan Hotel that evening after supper Dr. Bloom addressed an attentive crowd, speaking on "Respiratory Infections." This subject was covered in his usual thorough fashion.

Those present at the evening meeting were: Drs. T. B. Abney, H. L. Bauer, L. W. Brock, R. H. Brumfield, W. F. Cotton, A. J. Fortenberry, E. M. Givens, T. Paul Haney, H. C. Hatcher, B. J. Huey, J. E. Hewitt, L. E. Hewitt, S. Paul Klotz, Thomas Purser, G. W. Robertson, Elise Rutledge, L. J. Rutledge, M. D. Ratcliff and Charles Bloom.

Before the meeting adjourned Dr. Bloom spoke of the work he is doing with dicalcium phosphate in rickets.

Pike county is lucky in having Dr. Bloom as its guest and the society will long remember his visit.

H. C. Hatcher, Secretary.

PIKE COUNTY.

The officers for Pike County Medical Society

for 1932 are: Dr. W. O. Biggs, Osyka, President; Dr. M. D. Ratcliff, McComb, Vice-President; Dr. H. C. Hatcher McComb, Secretary-Treasurer; Dr. T. Paul Haney was elected social editor.

Drs. L. W. Brock and E. M. Givens of McComb, T. E. Hewitt of Summit and W. S. Lampton of Magnolia, returned to their respective homes about February 15 to resume practice following their post-graduate work, which was done at Tulane University.

Drs. W. C. Hart of McComb and J. E. Brumfield and J. M. Smith of Magnolia are now in Tulane taking post-graduate work. All of these men have been favored with scholarships by the Commonwealth Fund of New York.

The Pike County Medical Society plans on having a series of "clinical day" programs during 1932, the programs to be presented by outstanding men in medicine. The first program was held March 3, and Dr. Charles Bloom of New Orleans was the speaker. He easily won the hearts of all listeners and shall be remembered in these parts for many moons. The society was favored at this program with many physicians from adjoining counties.

The next "clinical day" program will be held April 15, at which time Dr. James G. Carr of Chicago, Professor of Internal Medicine at Northwestern University School of Medicine, will be with us.

Many of our county physicians expect to attend the State Medical meeting in Jackson this month.

T. Paul Haney, Editor,
per H. C. Hatcher.

CLAY COUNTY.

Since sending you report of medical news items last month, there have been only two or three additional cases of smallpox reported in Clay county and a total of 1750 vaccinated to date.

Mrs. Oliver Johnson of Dayton, Ohio, and Miss Elizabeth Deanes of Birmingham, Alabama, are visiting their mother Mrs. S. R. Deanes, who is in the local hospital here, after having fallen and sustained an intracapsular fracture of the hip some four weeks ago. Following the accident, Mrs. Deanes developed a hypostatic pneumonia and was very ill for a short time. She is now reported on the road to recovery.

Miss Margaret Dotson, who is teaching in Hernando, spent the Easter holidays with her parents, Dr. and Mrs. Lon W. Dotson. She was accompanied by Dr. C. W. Emerson, also of that city.

It seems that I am unable to gather any news items from the doctors of this county just now, as they are either too busy in their practice or fishing. Maybe something of interest next month.

Lon W. Dotson, County Editor.

WOMEN'S AUXILIARY OF THE ISSAQUENA-SHARKEY-WARREN COUNTIES MEDICAL SOCIETY.

So successful was the recent meeting of the Women's Auxiliary of the Issaquena-Sharkey-Warren Counties Medical Society, with its luncheon innovation held at the Hotel Vicksburg, that it was voted to have a repetition in April. A color scheme of green and white in honor of St. Patrick's Day was used through out the luncheon. Nineteen members were present. A vote of thanks was given to Mrs. M. H. Bell and Mrs. E. F. Howard, who had charge of the arrangements.

Mrs. W. C. Pool, Cary, president, presided. Papers were read by Mrs. E. F. Howard, Vicksburg, on "What the Auxiliary Should Mean to the City Doctors Wife," and by Mrs. A. K. Barrier, Rolling Fork, on "The Life of a Country Doctor's Wife." Mrs. George Street, Vicksburg, added to the pleasure of the occasion by the rendition of several beautiful vocal solos.

Mrs. E. F. Howard and Mrs. L. S. Lippincott were elected delegates and Mrs. F. M. Smith, alternate, to attend the meeting of the Women's Auxiliary of the Mississippi State Medical Association at Jackson.

The Auxiliary is paying for six subscriptions to "Hygiea" for schools. It is desired to correct the item appearing in a recent bulletin of the American Medical Association, stating that the Auxiliary had given \$2,500 dollars to the Preventorium Fund and expected to raise \$2000.00 more. The Auxiliary has given \$25.00 which is given every year.

Mrs. A. Street was elected Program Chairman and asked to select her own committee.

The members of this Auxiliary who are also officers of the Auxiliary of the State Association, and who will attend the meeting in Jackson are Mrs. A. Street, first vice-president; Mrs. W. C. Pool, second vice-president; Mrs. M. H. Bell, historian; Mrs. E. F. Howard, councilor for the fifth district.

Ada R. Bell, Secretary.

MONROE COUNTY.

On Tuesday the fifteenth instant the Northeast Mississippi Thirteen Counties Society held its first quarterly meeting for this year. The meeting was at Booneville and was presided over by our new president, Dr. W. C. Spencer, our society, as well as others, in the state, has been honoring the younger members, but we gave this honor to one of our older members this time. Some one spoke of Dr. Spencer as "the grand old man." He, richly deserves the honor and will reflect honor on us. The meeting was one of our best. The weather was superb, the attend-

ance full, the program good and the interest was keen. We had numerous visitors from other societies as well as some of the leading medical men of the south from outside the state. Dr. John Culley, our most splendid state president, frankly and positively stated that ours is the best society in the state. He said he had reached this conclusion after having visited most of the societies in the state. (May I digress to say that Dr. Culley has done more hard and constructive work for the Association than has any president for a quarter of a century—all honor and praise to John Culley). One notable thing done by our society at his meeting was to go on record, by a unanimous vote, as opposing a resolution that will be presented to the house of delegates at the Jackson meeting in April. This resolution seems to have originated in the Issequena-Sharkey-Warren society. It is apparent that the North Mississippi Seven Counties Society will, also, oppose its passage or adoption. In my opinion this resolution, if adopted would seriously cripple and handicap the Board of Health. It simply, "must not pass." I am wondering if the depression of spirits and finances will reduce the attendance at the approaching meeting. I, somewhat, fear that it will—especially since the A. M. A. is to follow so soon thereafter.

We have had quite a bit of "flu" in our section of the state during the last few weeks. But since winter seems to be gone and spring seems to have come, let us hope that good health will prevail.

Let us take courage, renew our allegiance to organized medicine, strive harder than ever before to render good and scientific service to our clientele, and cultivate the spirit of goodwill and comradeship to and with our fellows.

On to Jackson and may a good time and good fellowship await each and all of us who go.

G. S. Bryan, County Editor.

JACKSON COUNTY.

The course of lectures given by Dr. James R. McCord of Emory University at Gulfport was well attended by the doctors of Jackson County. One evening all of the doctors of Pascagoula and Moss Point attended, leaving both towns without a doctor for several hours. All were well pleased and felt that they were much benefitted by having attended the lectures and wish to take this means of thanking those responsible for arranging the course.

Dr. R. G. Lander represented the Jackson County Medical Society at the meeting of the State Medical Association at Jackson.

Drs. Lander and McIlwain attended the meeting of the Harrison-Stone-Hancock Counties Medi-

cal Society at Biloxi on April 6. Dr. Felix J. Underwood was the principal speaker.

S. B. McIlwain, County Editor.

ADAMS COUNTY.

Several Natchez physicians attended the 65th Annual Session of the Mississippi State Medical Association at Jackson, including Drs. J. W. D. Dicks, J. S. Ullman, L. Wallin, Raymond T. Smith, and J. A. Rayburn.

L. Wallin, County Editor.

SHARKEY COUNTY.

Dr. Robert Foster and family have moved to Illinois. Dr. Foster lived in Anguilla for a few years.

Mrs. B. Goodman, Mobile, Alabama, visited her son Dr. H. S. Goodman at Cary recently.

Mrs. E. B. Stribling of Rolling Fork is visiting her son, Mr. Sam Stribling at Atlanta, Georgia.

Dr. A. K. Barrier, Rolling Fork County Health Officer, has been very busy visiting the schools where he and his splendid co-workers administered typhoid vaccine to the children.

Dr. A. K. Barrier, Rolling Fork and Dr. and Mrs. W. C. Pool, Cary, attended the State Medical Meeting at Jackson. They report a splendid program.

Mrs. M. J. Few, Rolling Fork, is able to be out again after a long illness.

Dr. H. B. Goodman, Vicksburg, spent the day with his parents, Dr. and Mrs. H. S. Goodman, Cary, recently.

W. C. Pool, County Editor.

DEATHS OF MISSISSIPPI PHYSICIANS.

C. W. Smith, Glendora, at Memphis, Tenn., Feb. 23, 1932; Born Torrance, Miss., Dec. 15, 1880.

R. R. Bridges, Crystal Springs; Carcinoma of the prostate gland; at Hazlehurst, R. F. D., Feb. 26, 1932. Born Copiah County, Aug. 13, 1854.

Owne W. Stone, at Army Hospital, Brooklyn, N. Y., Feb. 29, 1932. Born Columbia, Missouri, May 8, 1850.

CALENDAR.

May 2.—Staff of Jackson County Hospital, 7:30 p. m.; Staff of Meridian Sanitarium, 7:30 p. m.; Staff of South Mississippi Charity Hospital, Laurel, 7 p. m.; Staff of George C. Hixon Memorial Hospital, Electric Mills, 8 p. m.

May 3.—Staff of Kings Daughters' Hospital, Brookhaven, 7:30 p. m.

May 4.—Staff of Chamberlain-Rice Hospital, Natchez; Staff of Vicksburg Infirmary, 7 p. m. Staff of Rush's Infirmary, Meridian, 7 p. m.; Staff of Dr. F. G. Riley's Children and Maternity Hos-

pital and Clinic, Meridian, 7 p. m.

May 5.—Pike County Medical Society, McColgan Hotel, McComb, 7 p. m.; McRae Hospital, Corinth, 2 p. m.

May 6.—Natchez Medical Club, 1 p. m.

May 9.—American Medical Association, New Orleans; Staff of South Mississippi Charity Hospital, Laurel, 7 p. m.

May 10.—American Medical Association, New Orleans; Staff of Natchez Sanitarium, 7:30 p. m.; Winston County Medical Fraternity, Louisville; Tupelo Hospital, 7:30 p. m.

May 11.—American Medical Association, New Orleans; Staff of Kings Daughters' Hospital, Greenville, 7 p. m.; Harrison-Stone-Hancock Counties Medical Society, 7:30 p. m.

May 12.—American Medical Association, New Orleans; Staff of Aberdeen Hospital, 8 p. m.; Staff of Vicksburg Hospital, 6:30 p. m.

May 13.—American Medical Association, New Orleans; Staff of Anderson Infirmary, Meridian, 7 p. m.

May 16.—Staff of South Mississippi Charity Hospital, Laurel, 7 p. m.; Staff of Vicksburg San-

itarium, 6:30 p. m.

May 17.—Staff of Natchez Charity Hospital, 8 p. m.; Central Medical Society, Jackson, 7 p. m.; Issaquena-Sharkey-Warren Counties Medical Society, Y. M. C. A., Vicksburg, 7 p. m.

May 20.—Natchez Medical Club, 1 p. m.

May 23.—Staff of South Mississippi Charity Hospital, Laurel, 7 p. m.

May 30.—Staff of South Mississippi Charity Hospital, Laurel, 7 p. m.

HONOR ROLL.

The following contributed to this issue of our Journal: James M. Acker, Jr., T. M. Dye, L. L. Minor, T. J. Brown, W. H. Watson, Jos. E. Green, Daniel J. Williams, D. W. Jones, J. S. Ullman, E. F. Howard, W. A. Johns, F. J. Underwood, W. B. Dickens, W. H. Curry, M. L. Montgomery, R. P. Donaldson, T. L. Bennett, H. C. Hatcher, Lon W. Dotson, Ada R. Bell, G. S. Bryan, S. B. McIlwain, L. Wallin, W. C. Pool, Mrs. F. L. VanAlstine, Lawrence W. Long, R. B. Zeller, F. M. Acree, L. C. Davis—29.

Your editors thank you.

THE PREVENTION AND CONTROL OF VENEREAL DISEASES.—A report of considerable interest recently submitted to Congress by Surgeon General H. S. Cumming deals with the prevention and control of the venereal diseases. During the fiscal year recently ended, the State health officers of 43 States reported to the Public Health Service slightly more than a quarter of a million cases of syphilis and more than 150,000 cases of gonorrhea. These diseases as a class continued to exceed the number of cases reported during the year of any other single communicable disease with the exception of measles.

The malaria treatment of general paralysis of the insane is now generally considered the most effective treatment of this condition. As a result the Public Health Service receives each year an increasing number of requests for infected mosquitoes for inoculation purposes. Plans are now under way to supply this need and to make further studies of this method of treatment in cooperation with various institutions where it is being applied.

Increasing importance is being attached to the early diagnosis and treatment of syphilis. The possibility of extending to rural and remote districts the advantages to be derived from early diagnosis by means of microscopic examination were studied and one method was worked out. This method has been tested by other observers

and at present is in operation by one State health department and is under consideration by others.

A special study of syphilis among negroes in rural areas in cooperation with State and local health authorities, inaugurated in 1929 with the financial assistance of the Julius Rosenwald Fund, was extended to include areas in five other States. A total of 28,195 negroes were serologically tested, and of this number 5,785, or 20.5 per cent, were found syphilitic on the primary survey. Of these positive cases, approximately 75 per cent were placed on intravenous medication, and at the close of the year 45 per cent of them had received treatment in amount considered sufficient to render them noninfectious. It is unfortunate that the methods used cannot be applied to all classes of population.

A one-day census of the cases of venereal diseases taken in three cities shows marked variation in the relative incidence and prevalence of these diseases as observed in different localities. A resurvey of one entire State and of a number of communities originally studied in 1927 made in order to determine the trend of venereal diseases and the effect of the methods employed for their control during the three-year period, disclosed the significant point that in communities where increases in the prevalence rates were found they occurred in the group of chronic cases, an indication that patients are being treated for a longer time than formerly.—United States Public Health Service.

BOOK REVIEWS

Emergency Surgery: By Hamilton Bailey, F.R.C.S. (Eng.). New York, William Wood & Co. 1931. 2 v.

The author, as stated in the preface of volume 1, has constructed this work "on the teachings of 'his' masters and practical experience," etc. Both volumes are thorough in every detail pertaining to the emergency field, even at times, overstepping into the domain of the specialist.

Vols. 1 and 2, comprising 21 and 20 chapters, respectively, are well and quite profusely illustrated. To discuss each chapter would be too lengthy a task. I shall therefore only try to refer to some statements that may cause comment. In chapter 3, dealing with peritonitis, supra-pubic drainage is preferred regardless of incision. In chapter 4, on Appendicitis, he advocates gridiron incision. The author's statement, "When in doubt, don't drain," is a rule which should not be too dogmatic. He is a great believer in the efficacy of mercurochrome used intravenously in gangrenous appendices, osteomyelitis, pyelephlebitis and septicemia from hand infections, a practice which has become obsolete here. In chapter 8, Emergencies of the Upper Abdomen, in treating of ruptured liver, he refers to Pringle's method of controlling hemorrhage with pressure of gastro-hepatic omentum at the foramen of Winslow, the same method used by Duncan Parham in America. When references are made to forms of special technic which are comparatively rare save for a few exceptions, English authors are mentioned. In chapter 10, dealing with spinal anesthesia in intestinal obstruction, the author uses stavaine "in saline and not glucose." The reviewer's experience and that of a few of his colleagues is that in intestinal obstruction, general anesthesia is preferable to spinal except when using conductive anesthesia of the abdominal wall. This chapter on spinal anesthesia is not up to the standard of the remainder of the book.

In chapter 15, the Lotheissen's operation for the radical cure of femoral hernia, is originally the Annandale technique (1876), Moschowitz (1904), popularized by Seelig Tuholske. The chapters on gastro-intestinal surgery are complete.

Volume 2 deals with the thorax, opening with a discussion on preparedness for emergency by means of general anesthesia. In this chapter the use of operative methods (thoracotomy and lung suture) for hemorrhage of lung caused by trauma is not the teaching in this section. Conservatism, immobilization by strapping the chest, has been the method of choice. Under the same chapter, operative procedures relative to the mediastinum are discussed in a concise manner. The subject of the pharynx and foreign bodies in the upper and lower air passages, as well as nasal accessory sinuses and ear, are discussed by Eric Watson Williams; the Eye and the Orbit are treated by

Humphrey Neame, and Teeth by Herman Haines. The close association of these special conditions in surgery and the care shown in bringing in the details are worthy of commendation.

In chapter 31, on blood vessels of the extremities, in the subject of vascular suture and the methods of temporarily occluding an artery, no mention is made of rubber catheter, which is the simplest procedure without causing damage to the endothelial lining of the vessel. In the same chapter the importance of embolectomy on the pulmonary vessels as well as those of the extremities is brought out.

Later, in discussing periosteomyelitis of the fibula alone the author recommends unhesitatingly "diaphysectomy." This seems to the reviewer a little too radical. In discussing the treatment of suppuration in joints, no mention is made of active mobilization (William's), the author preferring irrigation and heavy extension.

Chapter 36 treating of urgent amputation has diverged from the old classical amputations to a select few. Example, amputation of the leg, the 7 inch stump (the modern seal of election), a preference over all other levels. After reading Kanavel's book on Infections of the Hands, chapter 38, should show the vast importance of this branch of surgery. Many other chapter contents could be discussed, but a thorough reading of these two volumes will give one ample field to review his own and add further knowledge to the subject of emergency surgery.

EMILE BLOCH, M. D.

General Medicine (Practical Medicine Series): Ed. by George H. Weaver, M. D., and others. Chicago, Year Book Publishers. 1931. pp. 814.

This is a most useful volume. It is a comprehensive collection of the worth-while literature of the year. The field of general medicine is covered in a well-balanced manner. The brief remarks of editors concerning numerous articles are not the least of the many good features of the book.

I. L. ROBBINS, M. D.

Lchrbuch und Atlas der Spaltlampenmikroskopie des Lebenden Auges: (Textbook and Atlas of Slitlamp Microscopy of the Living Eye.) By Alfred Vogt. Part II, Lens and Zonula. Berlin, Julius Springer. 1931. pp. 455; 815 illus., 163 pl. Price, 298 marks.

This remarkable book is probably the most complete and elaborately illustrated volume published on an ophthalmic subject. It is the second of a series of three parts presenting the world's knowledge on this interesting and important subject, as presented by Europe's greatest authority.

The first section details the normal lens in its various parts and forms including new ideas on the mechanism of accommodation. Of especial

interest are the beautiful illustrations of the Lameller fibres of Rabi and the congenital sutures. In another fifty pages "Congenital and Developmental Anomalies," are then discussed, followed by Progressive Opacities of Youth and Adolescence.

Under "Affections of the Lens," detailed descriptions and illustrations are presented of rare forms of opacities, such as those associated with myotonic dystrophy, some skin diseases, Horner's syndrome, etc.

In the chapter on "Lens Injuries" the ring opacities of Vossius are shown to be the result of pressure from the iris. Concussion cataract may develop in the lens at least several years after an apparently slight ocular injury. This fact is of importance in medico-legal industrial ophthalmology. Cataracts from copper and steel which has remained in the eyeball for any length of time, are elaborately described and illustrated.

The author's investigations on cataracts produced by luminous energy have brought out new facts which are important in industrial ophthalmology. Both heat and light are shown to produce definite and characteristic lens opacities.

The closing chapter is devoted to the anatomy, congenital anomalies, and the effect of injuries on the zonule.

Ophthalmology is indebted to Professor Vogt for this outstanding volume which will probably not be equaled for many years. We are richer because of his talents and apparently inexhaustible energy.

CHAS. A. BAHN, M. D.

Courts and Decisions: By Lloyd Paul Stryker. New York, The Macmillan Co. 1932. pp. 236.

This is an interesting book dealing in the main with medico-legal problems. It is well written and of interest to those not initiated into legal procedures. Several widely discussed verdicts, rendered by our foremost jurists are here cited. Read this book at your leisure.

M. CAMPAGNA, M. D.

Annals of the Pickett-Thomson Research Laboratory: Vol. 7: Under the supervision of Sir Ronald Ross, K. C. B., K. C. M. G., F. R. S. Baltimore, Williams & Wilkins Co. 1931. pp. 411.

Inspiration for the Pickett-Thomson Research Laboratory is Sir Ronald Ross' arhythmic couplet: Tho' we may not reach the Peak

God gave this great commandment "Seek."

Britishly sought, via more than ten thousand references, is the mass of clinical and epidemiological data on the streptococci with which Drs. Ross and Ross are completing a nine or ten volume bacteriological encyclopedia. Five volumes

have already been printed. Three more will follow as well as two atlases of photograph.

This, the fifth volume, tome sized and paper covered, consists of three monographs, viz.: The Role of the Streptococci in Erysipelas, The Role of the Streptococci in Skin Diseases, The Role of the Streptococci in Measles. There are sixteen hundred references.

Practically all of the observations ever made concerning the role of the streptococci in the three diseases are incorporated in "an attempt to epitomize, classify and correlate the thousands of research papers published by workers all over the world." Included are summaries of articles by the following local investigators: Rigney D'Aunoy, R. J. Hibbard, Charles Duval and John Musser.

Believing in the efficacy of an improved standardized Crowe's medium which serves as means for accurate differentiation of the "multifarious species of streptococci," and in the value of their thousands of photographs of streptococci already taken it is the author's prediction and promise that with the completion of their work they will be able to arrange the species of streptococci into twenty or thirty groups each of which will be divided into about ten varieties.

MAURICE SULLIVAN, M. D.

Allergy: By Warren T. Vaughan, M. D. St. Louis, C. V. Mosby Co. 1931. pp. 359.

The number of books on allergy are increasing very rapidly. This book of Vaughan's is a worthy contribution to the subject. It contains a tremendous amount of information on allergy in a condensed form. It is an excellent quick reference book, and will no doubt become a standard textbook on allergy.

B. G. EFRON, M. D.

The Diagnosis and Treatment of Venereal Diseases in General Practice: By L. W. Harrison, D. S. O., M. B., Ch., F. R. C. P. E. 4th ed. London Oxford University Press. 1931. pp. 567.

As the title implies, the text is written chiefly for the general practitioner as it is impossible to cover the whole subject of venereal diseases in so small a volume in minute detail.

The author very beautifully covers the differential diagnosis between syphilis and a number of skin conditions with very lucid descriptions and photographs.

He stresses the necessity of the dark-field examination for treponema and the staining of smears from urethral discharges for diagnostic purposes.

In his treatment of the different conditions he describes the different drugs used in considerable detail, stressing the value of the different drugs with reference to the results he has obtained. The

manner and types of treatment are described in as great detail as the space would allow, but are not as complete as his diagnostic procedures.

MONROE WOLF, M. D.

Female Sex Hormonology: By William P. Graves. Philadelphia, W. B. Saunders Company. 1931. pp. 131.

This is a small compact, well written and arranged review of the entire subject matter in reference to the female sex hormone. The author, as indicated in the preface, has attempted to collect past and recent accomplishments in the researches on this important hormone. The purpose is most admirably accomplished, as the paragraphing, consideration of subjects, and the supplying of data up to date is characteristic of the book throughout its composure. This book would interest workers in this special field of medicine and surgery, and could easily serve as a wonderful reference book for students and others of the medical profession interested in same.

P. T. TALBOT, M. D.

The Vitamins: By Ethel Browning, M. D. Baltimore, Williams & Wilkins Co. 1931. pp. 575. Price —. (Monographs of the Pickett-Thomson Research Laboratory, Vol. 1.)

This monograph aims to be a fairly exhaustive survey of the whole field of knowledge of vitamins. They are discussed from many angles; history, occurrence, chemical nature, stability, storage, technic of animal experimentation, physiological effects of deficiency and clinical feature of the deficiency in humans. Dr. Browning has handled an enormous bulk of literature involving countless contradictions with great skill and discrimination. No doubt investigators who have spent years of study on one small phase of the vitamin problem will feel that she has not shown the critical insight into certain problems that they, after years of specialized study, possess. One reviewer can hardly be expected to attain such a highly critical grasp of the entire vitamin field. Indeed one may rightly question of the attempt of one person of such an inclusive task. Of course, the single reviewer gives to his presentation a unity which is impossible to a work by many writers. Dr. Browning states in her introduction that she "has had perforce to remain content with the endeavor to weave into a complete pattern those threads which have seemed most important to the continuity of the design." It is debatable whether, in the present state of knowledge of vitamins, a complete pattern should be attempted. However, the reviewer is glad that the attempt has been made. The busy practitioner will find the exten-

sive table of vitamin content of food useful. The physician who wants to know more than a few bare principles will find the monograph fascinating reading. The work will find its greatest usefulness in the hands of the investigator in the vitamin field who will probably use its splendid bibliography in his own problems and will be particularly grateful for this means of obtaining quickly and easily a broad and fairly detailed knowledge of the whole vitamin field. The general arrangement and printing of the book are excellent and the index is conveniently arranged and complete.

R. H. TURNER, M. D.

PUBLICATIONS RECEIVED.

F. A. Davis Company, Philadelphia: Pathology for Nurses, by Eugene C. Piette, M. D. Modern General Anesthesia, by James G. Poe, M. D.

The Macmillan Company, New York: Reconstruction of the Biliary Tract, by Edmund Horgan, M. D., F. A. C. S. Behavior Aspects of Child Conduct, by Esther Loring Richards, B. A., M. D., D. Sc.

P. Blakiston's Son & Co., Philadelphia: Clinical Atlas of Blood Diseases, by A. Piney, M. D., M. R. C. P. and Stanley Wyard, M. D., M. R. C. P.

Paul B. Hoeber, Inc., New York: Italian Medicine, by Arturo Castiglioni, M. D.

The Century Company, New York: Nutrition Service in the Field, Report of the Subcommittee on Nutrition, Lucy H. Gillett, Chairman. Obstetric Education, Report of the Subcommittee on Obstetric Teaching and Education, Fred Lyman Adair, M. D., Chairman. Growth and Development of the Child, Part III Nutrition; Report of the Committee on Growth and Development, Kenneth D. Blackfan, M. D., Chairman.

Harvard University Press, Cambridge: Walter Bradford Cannon—1906-1931.

Wilhelm Maudrich, Publisher, Vienna: The Technique of the Non-Padded Plaster Cast, by Fritz Schneek, M. D.

Lea & Febiger, Philadelphia: A Medical Formulary, by E. Quin Thornton, M. D.

MacCrellish & Quigley Co., Trenton: Fifty-Fourth Annual Report of the Department of Health of the State of New Jersey, 1931.

The University of Chicago Press, Chicago: Midwives, Chiropractists, and Optometrists, by Louis S. Reed, Ph. D. A Survey of the Medical Facilities of the State of Vermont, by Allon Peabees, Ph. D.

The Rockefeller Foundation, New York: Method and Problems of Medical Education.

State of New York, The Department of Health, Albany, 1932: Public Health in New York State.

Montague Hospital for Intestinal Ailments, New York: Psyllium Seed: The Latest Laxative, by J. F. Montague, M. D.

New Orleans Medical

and

Surgical Journal

Vol. 84

JUNE, 1932

No. 12

ANNUAL ADDRESS*

S. C. BARROW, M. D.,
SHREVEPORT, LA.

According to custom, the Louisiana State Medical Society holds an annual public meeting at some time during its scientific assemblage each year, and it is for this purpose that we have assembled this evening. According to custom again, the retiring President of the Association is expected to deliver an annual address: he is expected to submit for your entertainment somewhat of a resumé of the accomplishments of the medical profession in the past, or picture for your mind's eye, her program of scientific activities for the future.

According to this custom, I would be excused were I to go back to the era of Mythology when Aesculapius came to earth, and bring you on down the ages of Pythagorus, Hippocrates and Galen. Again I might be permitted to discuss with you, the achievements of men of a later age, Harvey, Pasteur, Lister, Koch, Roentgen and other masters who have made modern medicine possible. Yes, according to custom, I might tell you of the things being accomplished today and the problems which are at this moment, unfolding before our very eyes, because of the labors of men who are now living and working, some of whom no doubt, are sitting in this very audience.

But, my friends, custom is akin to tradition; it is a static condition or process and cannot serve as our only guide in a

moving changing age such as the present. There certainly can be no one with a mite of intelligence who would question the statement that medical science has brought her share of happiness, prosperity and contentment to mankind. And judged by her past, there certainly can be no one who doubts that she will meet successfully, the scientific problems confronting her today and that will certainly arise in the future.

And so, contrary to custom, I dare this evening to leave behind those things known and obvious to us all and ask your attention for a brief few minutes, to that phase of our work which it seems so few realize, is the very foundation upon which rests future progress in medicine.

Judged by history, it would appear that we need have no fear for the future of scientific medicine so long as the medical profession is permitted to direct her destiny. Judged by history again, we need only to glance at those countries that have taken the fatal course of endorsing outside interference in medical matters, to be convinced of the need of concerted and organized opposition to such schemes.

My friends, outside of the profession, we are appealing to you to come to the rescue of one of America's greatest institutions. The physicians present this evening will tell you that the practice of medicine in this country is distinctive. The individuality, the personal incentive and ambition, qualities which have made our country great, must be preserved not only in medicine, but in all of her institutions. The great question confronting the American

*President's address, delivered at the meeting of the Louisiana State Medical Society, New Orleans, May 9, 1932.

medical profession today, and more particularly the American people, is whether the medical profession shall continue to operate with the individual doctor as a human unit, spurred on by individuality, ambition and incentive, or shall it be operated as a cold blooded piece of machinery, with the individual doctor as a mere cog in the wheel. The former is an American ideal and has resulted in great achievement; the latter is foreign to our very nature and has brought despair, discontent and a degenerated service in those countries that have tried it.

In this country under our present system, the scientific level of the individual doctor determines the scientific level of the whole profession, and it is the paramount duty of Organized Medicine, as well as society, to see that no unjust barriers be permitted to lower that level. We know of no machinery which will provide ways and means for maintaining the individual doctor at a high standard of scientific development and equipment, excepting the efforts of the doctor himself. Unless these efforts succeed, the individual deteriorates and when he deteriorates, the whole profession deteriorates while the public suffers. That these efforts are failing, no one who has given the subject thought, will deny, and why they are failing, the profession well knows and the public would like to know.

The medical profession knows and the masses of the profession who are feeling the pressure, would like for the public to know that their sources of income are being unconstitutionally, unfairly, unjustly and without reason, taken from them by the Government, its subdivisions and misguided organizations.

The primary object of the medical profession is to render service to suffering humanity, but they must be paid for this service as it is their only means of livelihood. The medical profession stands ready and willing to render medical service free to all the indigent of this country, and is only asking that those able to pay be re-

quired to do so, and that their names be erased from the Government and reckless charity organizations. It is unnecessary to go into particulars. The general accusation that the National Government, the various states, subdivisions and municipalities have and are adopting as a policy the provision of medical care and service for those well able to provide for themselves at the expense of the general tax fund, stands unchallenged. That various private and public organizations, supposedly operating for the indigent, are commanding the services of the profession for those not deserving, is well known to all.

The high cost of medical care, if any exists, is being forced on those who pay and are partly able to pay, by those agencies which make it possible for those to escape who should pay for their medical service. The American medical profession has never asked and never will ask for legislation or the public moral support of any scheme simply to enrich the doctor, but we do ask the moral support of an enlightened public opinion in the suppression of all schemes and legislation which set aside the doctor as a class to carry heavier burdens than the rest of our citizens. We have an abiding faith in the fairness of American public opinion, and we realize that we have not done our part or duty in getting to the public, facts on which the public could form a correct and fair opinion.

In every community over the country, organizations have been formed and are still forming for the care of those in need. The doctor, like all good citizens, contributes to the support of these organizations, but we have failed to call your attention to the common unfair custom of demanding his service gratis, in addition, when medical service is needed. We have failed to show you that it would be just as fair to demand free clothes and food from your local merchants after they have contributed to your organization, financially. We have failed to call your attention to the fact that many applying for free medical service have only this one need, all other necessi-

ties, and in many instances, luxuries seem to be at hand.⁷ We have failed to tell you that when a disaster strikes a given section, that wonderful organization, the Red Cross, is immediately on hand purchasing with cash from her funds, the various supplies needed and dispensed by a paid personnel. But, should illness develop among the stricken, the local doctor with Red Cross button on his lapel, is called to meet this need. We have failed to tell you that the State of Louisiana runs her Charity Hospital with no pay staffs, and is throwing the doors of these institutions wide open to people who have no claims on the charity of the community.

We have not told you that at every session of the Legislature the State Medical Society maintains at our expense a large committee at Baton Rouge to be on the alert and oppose legislation inimical to the health of the people as a whole. We have not brought to your attention, in a systematic way, the pernicious tendencies of our National Congress in legislative matters which are heaping burdens upon your shoulders, pauperizing the medical profession and debasing themselves in the eyes of all who believe in the fundamental principles of our Government.

Yes, my lay friends, these are but illustrations, and the medical profession has faith and confidence in your verdict when you realize the truth.

"The mills of the gods grind slowly." May the protests of the few, arouse our organizations, state and national, from their lethargy and develop some concerted, systematic program of worth to themselves and the nation.

To those members of the medical profession present, I can tell you nothing that you do not already know, but knowledge without action is fruitless. Annually we meet and discuss our scientific problems and adjourn to meet again. In the interim, what are we doing in our organized way? We publish a journal monthly and it reaches just half the doctors of the state, our members. Our national organization publishes a

journal and it reaches hardly one third of the doctors in this country. Have we or they any organized plan to contact those without the organizations? Have we anything worth while to those doctors not members of our organization? And do we not realize our need of their help? To refuse or make no effort to preach to others than his closed congregation, would seem a poor and short-sighted preacher.

And again, what do we find within the pages of our state and national journals? Food in plenty, I grant you and of the best for nutrition scientifically, but is this a balanced diet and are there not other functions to be performed by our organizations that are being neglected? What is the American Medical Association or the Louisiana State Medical Society doing in an organized and systematic way to further the interests of the individual doctor and every doctor, that will place him in position to better serve the profession and the public? In answer I will say, "Practically nothing."

What have we in Louisiana been doing to convince those doctors not in our fold, that our organization is worth while, and what have we done that will prove our organization is worth while? We have simply been preaching to ourselves that we are all right and wondering why the other half cannot see it. As a mother organization, I ask again, what has the American Medical Association been doing in proposing, suggesting or planning any program of activity in conjunction with the state societies, to further the whole interests of the whole profession?

Is it not apparent to all who have given the matter any thought, that the medical profession is a stranger to the public? And is there any man so simple of mind as to believe that the American public would do other than to embrace the profession sympathetically and take action positively, if they truly understood our problems, as theirs?

To my mind, my friends, the one big question confronting Organized Medicine today, is the problem of winning to our side, public opinion. It is our fault that we are

without its influence. We have tried to make traditional practices fit and operate in a changed environment. Even the Church operates today, a most business-like machinery, adapting itself to modern methods, recognizing that greater and better service can be rendered in this way.

A great philosopher once said, "It is the duty of every man to so conduct himself and the business in which he is engaged, in such manner that it will increase in scope and become more useful to society in the future." The practice of medicine is our business. Are we conducting it in such manner that it will be of greater service to mankind in the future? If not, where and how are we failing? Certainly, we have not failed scientifically, but have we not failed in not laying a foundation upon which we may stand assured that we can proceed without interference in the future? Working in an atmosphere of mysteriousness, without sincerity to one's self, subsisting upon the plaudits of those who would flatter and impose, drawing aside as different in human nature from our fellow man, allowing things to take their course, the public has become suspicious and unsympathetic, and is listening to the schemes of those who are striking at our very existence.

The medical profession as an organization and individually must come forward unabashed and with firmness, tell the world that in order to carry on, it must be operated on a business basis as far as is practical and possible. It must come forward and show the world that this can be done to a satisfactory extent with no hardships on anyone, by simply removing from national, state and private organizations, those who have no claim on charity. The medical profession can well afford to provide free medical service to all of those who deserve it, if those who do not deserve it, were taken from the charity lists of our national, state and private organizations.

The individual doctor and individual patient always have been able to adjust their business affairs satisfactorily as a rule, and always will be, because the profession has

never placed a fixed unvarying price on its service, and has been permitted to serve all of the sick. But under conditions which have gradually developed, resulting in 71 per cent of the sick being cared for as charity or semi-charity, including a large group who have no right to free medical service, it is becoming difficult for the doctor to operate as he should. The critic out there will say, "Well, what are you going to do about it?" My answer is: "I can do nothing, but he and I and you can." By he, you and me, I mean our National Association, our State Association and our local Associations and individual doctors working together, with some semblance of a coordinated plan and aim.

Working on the premise which no one questions as true, that public opinion is invincible, I would urge a program of telling the story to the public. I would urge that this program be initiated by the American Medical Association in a way that each State Association and in turn, the individual component associations, be allotted a definite part and a definite scheme for putting same into action. One year ago, the Bureau of Medical Economics of the American Medical Association was established and they have proposed twenty-nine phases of the subject for investigation. It would seem to one who has given the matter just superficial thought, a most natural function of this Bureau would be to provide a systematic flow of information to the public and our law-makers, on conditions developing that are detrimental to Organized Medicine. Yet, we do not find such an activity listed with the other twenty-nine.

To tell the doctors through the columns of the American Medical Association Journal that a medical education costs so much, that the doctor averages a collection of so much, that medical fees are not burdensome to those who budget their income, is not solving our problems. The average doctor knows now, in a general way, what all these investigations will reveal. Tell it to the people, to Congress, to our legislatures and other organizations, in a systematic way

with the prestige of the American Medical Association and State Association, and results will follow. I would urge that the American Medical Association come closer to us and among us, that a representative from that organization visit regularly in our states meeting with our representatives, on pre-arranged schedules with pre-arranged programs of telling facts to the public, which they are ignorant of, but want to know. I would urge that that great medium, the public press and lay journals, be used by our Mother Organization for conveying to the public, information which will enlighten them on the dangers of the present medical trend, rather than to devote its whole use to advice as to how to prevent measles or whooping cough. I would urge that our National Association proceed in some systematic way to contact regularly, those thousands who are on the outside. For the National Association to leave it to the states and the states to the individual parish and county units, has not gotten us very far. I would urge the National Association to throw her whole influence of prestige into a militant move of education for the public and a drive for a perfected organization.

I have been told by officials high up in Organized Medicine, that in many sections, there was an unfriendly feeling and attitude on the part of some of the component bodies. If this is true, there must be some reason and a little self analysis would be in order. When the Journal of the American Medical Association refuses to publish the opinion of the President of a State Society on a matter pertaining to Organized Medicine, with the curt reply that it contains nothing new, a little more self analysis is in order.

Closer contacts, more sympathetic feeling and co-ordinated action down the line is needed. The time has come when our state organizations must provide for constant activities in a systematic way, operating under full time trained organizers working in turn with representatives of the National Association, with definite aims

and purposes. With such concert of action and plans, the whole truth can be told in a convincing way and we will find a sympathetic and responsive public.

The critic again says, "This will cost money." But the doctors of this country are intelligent men and women and will be willing to foot the bill when convinced that a real effort is to be made.

MEDICAL EDUCATION IN MISSISSIPPI.*

JOHN C. CULLEY, M. D.,
OXFORD, MISS.

The education of physicians is a subject which has found a prominent place upon the programs of medical meetings during the past twenty years. Before that time the average physician had given little thought to it. He had obtained his own education at the best school available to him, considering his own particular geographical and financial limitations. If he had sons who wished to follow in his footsteps, he assisted them to get their training in much the same way as he had obtained his own. This does not mean that we saw no progress in medical education up to a quarter century ago. Everyone realized that the young doctor should and could have greater advantages than his father and grandfather had been able to enjoy. But the fact that the state of medical education as such affected every man who possessed the degree of Doctor of Medicine—no matter whether it was one year or fifty since he had graduated—did not, until recently, seem to be generally understood.

The reason for this change of view is to be found in the publication, in 1910, of the findings of the investigators for the Carnegie Foundation, headed by Abraham Flexner. Many of the data contained in this report were a distinct surprise to all medical practitioners; many had never

*President's Address, delivered at the Sixty-fifth Annual Session of the Mississippi State Medical Association, Jackson, April 12, 1932.

realized the true character of the institutions from which they had themselves graduated. The report as a whole caused a great upheaval in all our preconceived notions concerning medical education in the United States. The American Medical Association immediately took action to raise the entrance requirements and increase the pre-medical requisites for admission to all the schools of the country, and the Council on Medical Education which was shortly organized, has ever since been busy elevating the standards of training for physicians. Much has been accomplished, but much still remains to be done. It is essential that each state and local association should inform itself concerning the conditions existing in medical education within its own territory, and be ever on the alert to insist upon the attainment of the highest standards set by the Council, as well as to encourage all students of medicine to be satisfied with nothing short of the best.

The most striking—and most deplorable—fact brought out by Flexner was “that the organization of medical education in this country has hitherto been such as not only to commercialize the process of education itself, but also to obscure in the minds of the public any discrimination between the well-trained physician, and the physician who has had no adequate training whatsoever. As a rule, Americans, when they avail themselves of the services of a physician, make only the slightest inquiry as to what his previous training and preparation have been . . . a vast army of men is admitted to the practice of medicine who are untrained in sciences fundamental to the profession and quite without a sufficient experience with disease.”¹

The first medical men to reach the New World after Columbus had shown the way, were inevitably the product of the universities of Europe, and as civilization advanced on this side of the Atlantic, those youths who desired to flourish the staff of Aesculapius were obliged to travel back to

those European medical centers in order to get training. As this was a tedious and highly expensive process only a few were able to follow this plan. It was likewise highly selective; none but the most ardent and intelligent could meet the tests. When these men returned to their homes they were usually ready and anxious to communicate to the less fortunate—generally for a good and substantial consideration—what they had seen and learned. As these foreign-trained men were likely to be located in the larger towns, notably Philadelphia, students gathered about them, so as early as 1750 it was possible for those who desired training in such subjects as anatomy or obstetrics, to journey thither to get it. Such students, returning to the frontier towns, took as apprentices likely young fellows who could curry horses as well as make mustard plasters, and be trained to replenish the family wood pile with skill and dispatch, as well as take off an arm or leg. The apprentice system in retrospect seems crude, yet we know that it turned out some very creditable products. Many a man whose name afterward became famous among early American physicians began his education in this way. Some of the best known of these originated in the South. The names of Ephraim MacDowell and Marion Sims come to mind, although Sims should properly be regarded as a product of a later age, when medical schools had been organized in many sections of the Atlantic seaboard. MacDowell, to use the words of Flexner, “left the Kentucky backwoods to spend two years in Edinburg under Bell; and when they were over, returned contentedly to the wilderness, where he originated the operation for ovarian tumor in the course of a surgical practice that carried him back and forth through Kentucky, Ohio and Tennessee.” The South has a right to look back with pride upon these pioneer achievements.

Unfortunately, along with the rest of the country, the South abandoned this high standard, as civilization advanced by leaps and bounds, and all conditions of life be-

came easier. The desire of those who have enjoyed superior advantages to teach their less fortunate younger brothers, deserves nothing but praise. Though they often made money at it, the making of money was not their original object. Their lecture courses were designed to supplement the practical work the student had already accomplished as an apprentice to some reputable clinician. Such courses, after being conducted independently often became integral parts of the teaching at some previously existing seat of learning. Such was the origin of Harvard Medical School and that of the present University of Pennsylvania.

But at the beginning of the nineteenth century the apprentice system was outworn and discarded, along with other social customs which had been outgrown by the rapidly expanding nation. To meet the needs of medical education the didactic school now began to appear. Commercialism took the upper hand. Wherever a certain number of practitioners were of like mind and anxious to eke out the none too generous income from regular practice, there a medical school might be set up, no matter whether there was capital enough to provide equipment, nor skilled instructors capable of passing on the torch of learning. The local men constituted the stockholders; the members of the "faculty" usually divided the fees after the very small "overhead" had been deducted. The interest centered upon inducing as many students as possible to enroll, rather than upon turning out the best educated doctors. Thus the whole system of medical education became thoroughly demoralized.

In this debauchery the South suffered more than the North, especially after the war between the States, for then the majority of families from which the medical profession should normally be recruited, were too poor to permit their sons the enjoyment of the advantages offered by large medical centers, such as Philadelphia and Boston. The impoverished States could not afford to support universities which

could give facilities for proper medical education, or even to establish secondary schools where the future medical student might get a proper background for his special training. The proprietary medical school took the student without preliminary examination in many instances; never were the requirements equal to those of the old universities. These conditions prevailed throughout the country—they were in no way peculiar to the South—only here there was perhaps a little more excuse for them.

The proprietary medical schools often proved gold mines to those who promoted them; in consequence their numbers increased until the profits began to dwindle. Greater efforts were put forth to induce young men to enroll as students, the result was a steady decline in the character and ability of those taking the course. When Flexner began his survey a vast number of ill-equipped and generally inferior young men were yearly being added to the already over-crowded ranks of American medical practitioners. Almost every student who made the attempt could by some route—straight or devious—arrive at the degree of M. D. If he failed in one school he could get in somewhere else where standards were even lower. A new medical school could graduate a class the first year of its existence by recruiting students from other institutions and such examinations as they gave were sure to be "passed" by all the candidates whose fees were paid in full. A dozen examples of such practices are cited by Flexner, located in all parts of the United States. I will mention but a single example the Mississippi Medical College, which was established at Meridian in 1906 and graduated a class in 1907.

This brings me direct to the subject upon which I am scheduled to speak—medical education in our own state. Flexner said some rather scathing things about the kind of medical education we were providing, but it is only fair to note that he was just as severe upon many other states, and found far more fault with the North than with

the South. Nevertheless, it is what he said about Mississippi that interests us at the present moment. When he visited us in November 1909 he found two medical schools in existence, these being, so far as I am aware, the only ones Mississippi has ever had within her borders.

The school at Meridian had then been established for three years; its average attendance as 100, 94 per cent of the students being Mississippi boys. The teaching staff consisted of 19 members, 12 of whom were ranked as professors, the others merely as assistants. There was no dispensary, no hospital facilities other than the privilege held by certain of the faculty members at a small hospital more than a mile away, of whose staff they were members. Of the laboratory facilities we learn: "At the date of visit there was no outfit at all. Subsequent reliable report credits the school with a vat containing four cadavers in a room without other contents, a simple outfit for elementary chemistry and twenty brand new microscopes, but no material to use with them."²

I have endeavored to obtain other information concerning the Meridian institution. Dr. H. Lowry Rush has answered my inquiry with the date of organization and a partial list of stockholders and students graduated. In addition he says, "The school flourished and had quite a number of students each year. It was able to meet all its obligations and *to graduate some men who have made good in the practice of medicine.*"

I have italicized this last phrase, for it seems to me to be highly significant. As there are undoubtedly some members of this audience who got their education at Meridian; it should be kept in mind while Flexner's strictures are being cited. Indeed, Flexner himself says in speaking of the "vicious system" which permitted the springing up of so many proprietary medical colleges, that "the best products of the system are hard to reconcile with the system itself." The boy bent on becoming a

doctor because of a sincere desire to practice the art of healing will get all that can be had from the poorest school, although that is no argument for the countenancing and maintainance of poor schools.

The other medical college visited by Flexner in 1909 is still with us, and is sufficiently well known to all of you to make it unnecessary for me to say much of its history and attainments. This is the Medical Department of the University of Mississippi, which began as a two-year course only; was later extended to a four-year course by carrying on the third and fourth years at Vicksburg; and was later still, returned to the two-year basis, on which it is maintained at the present time. From Doctor James B. Bullitt, now of the University of North Carolina, I have been able to obtain some very interesting details concerning the early days of Mississippi's only medical school.

The idea of establishing a two-year medical course in connection with our University was a current one at the time of the reorganization of the American Medical Association in 1902-3. The reason for this sentiment among medical educators is explained by Dr. Bullitt as follows: "Many of the then existing schools were doing trivial work in the laboratory branches even though they might be doing well in the clinical subjects. It was felt that the 'academic influence' would improve the scientific quality of medical teaching. It was also thought that geographical separation of the first two years from the last two years would be desirable by preventing the distraction of the student's attention from the laboratory by the clinic . . . Most of the laboratories thirty years ago were conducted by clinicians to whom the laboratory was a mere side issue. It was desired to have whole-time teachers in these branches. A college which could not develop a complete medical school might well conduct the laboratory subjects with whole-time teachers and feed well-trained students into the third-year classes of schools

that had good clinical facilities, but lacked laboratory teachers of good quality."

I am pleased to call your attention to the fact that our orator for the occasion is the one who is responsible for the organization of the University of Mississippi Medical School. He came to Mississippi as Professor of Biology and Physiology, but soon expressed an interest in organizing a Department of Medicine. He was the first Dean and served in that capacity until he left the state in 1924 to assume the position of Dean of the Vanderbilt University Medical School. Not only was he Dean of our Medical School, but he also served as executive officer of the Mississippi State Board of Health from June, 1910, until his departure from our state. During his whole term of office as dean, the standing of the Medical School in the National Associations was unquestioned. It can truthfully be said that the name of Dr. W. S. Leathers is synonymous with Medical Education in Mississippi.

But what I have said of him is in no manner a reflection on those who succeeded him to the deanship. Dr. J. O. Crider served the Department not only as Dean, but as Professor of Physiology. He was most thorough and especially was he to be commended for the efficient, systematic and painstaking manner in which he evaluated the credits and reported the records of the students to the accrediting bodies. He was, it is true, a hard taskmaster, but it could be well said that the student who passed Dr. Crider's work need have no fear as to his future work in other schools. His work as dean brought forth most favorable comment from the various schools throughout the country.

Last, but by no means least, I wish to mention the present dean, whose occupancy of the office was not of his own choosing. In fact, he took it against his will, but greatly to his credit let it be understood that no one could have put his shoulder more closely to the wheel or worked harder against apparently unsurmountable difficulties.

It is not my purpose to re-open what I choose to call a closed chapter in the history of the medical school. All of you know full well the details of the recent upheaval, but as this is the first attempt to record the history of medical education in our state I think it my duty to bring out some of the salient points relative to the "shake up" and its relation to the Department of Medicine. On a certain morning in July, 1930, the whole country, and Mississippians in particular, read the astounding news that several members of the faculty of the University of Mississippi and other state schools had been dismissed.

As a result of this wholesale dismissal the medical school found itself minus the heads of three departments; those who were dismissed by the Board being Dr. J. O. Crider, who was dean and also Professor of Physiology, and Dr. P. W. Rowland, an ex-president of this Society and the only member of the faculty connected with the school since its foundation. Dr. E. S. Sanderson, who was the head of the Department of Pathology and Bacteriology had resigned previous to the "shake up" and negotiations were being made with someone else to take his place.

With the loss of the above-mentioned men, the medical school faculty was composed of the following: Drs. P. L. Mull, J. B. Looper, G. H. Woollett, B. S. Guyton and A. H. Little; the last two being associate professors. There were also several student assistants.

This newspaper announcement together with a telephone message from Jackson to Dr. Alfred Hume, then chancellor, was the only notification that the professors had of their dismissal; nor was any reason ever given for this action.

The immediate action of the various accrediting bodies is now history. The Council on Medical Education and Hospitals wrote the following letter to the Governor of the State, and so far as I can ascertain no reply to this communication was ever received:

July 10, 1930.

His Excellency Theodore G. Bilbo,
Governor of Mississippi,
Jackson, Mississippi.

Dear Sir:

From news clippings and from other authentic reports we have obtained rather distressing news in regard to the University of Mississippi and more particularly in regard to its school of medicine. Of the ten medical schools which are providing for the first two years, or freshman and sophomore years, of the medical course, heretofore, the University of Miss. School of Medicine has been among the leaders from the standpoint of the scholarship of their medical students. For this reason the school has always ranked among the Class A institutions.

For these reasons we are naturally distressed that anything might happen which would prevent a continuation of the high rating which that medical school has heretofore held. We are very much in hopes, therefore, that the matter has not gone so far but that it can be rescinded whereby this high rating can be maintained.

If the changes which are reported have gone so far that they cannot be repaired, of course, the American Medical Association will have no other alternative than to remove the institution from our approved list.

I shall await with interest such information as you can give us showing what has been or will be done in the matter.

Yours very truly,

COUNCIL ON MEDICAL EDUCATION
AND HOSPITALS.

The result of this letter was the reinstatement of Drs. Crider and Rowland. Then it was that Dr. Crider resigned to accept the position of assistant dean at Jefferson Medical College in Philadelphia. So you can imagine how anyone would feel about assuming the duties of dean of a medical school which had lost several of its faculty members who were heads of departments, and the pleasing fact that the removal from the approved list of American Medical Colleges would take place unless certain requirements were met. In the face of such a situation, Dr. Mull consented to accept the deanship and proceeded to reorganize his faculty. And may I here speak a word of praise for our sister institution, the University of Tennessee Medical School, who through its dean, Dr. Hyman, assisted us by supplying a man from its faculty to teach physiology. This fact together with

the endorsement and assurance of support from the Mississippi State Medical Association prevented our being dropped from the accredited list of American Medical Colleges and placed the school on probation until the University as a whole could regain her standing in the Southern Association and the people of the state removed all possibility of any further interference from political domination.

After the re-organization and re-instatement of those suspended, we find the faculty composed of the following: Drs. P. L. Mull, dean; P. W. Rowland, G. H. Woolett, J. B. Looper, H. G. Gondolf, C. E. Ward, B. S. Guyton, A. H. Little, Henry Alloway, special student assistant, and Frank A. Wood, full-time student assistant.

Prior to this, very little interest had ever been manifest, either by the medical profession or the laity, in the medical school. Dr. Mull realized that he occupied the position of one who must sell to the profession and the laity of our state something that they already owned but did not appreciate. How well he has done this is evidenced by the whole-hearted support which he has received from all parts of the state and the implicit faith of the students, who, through it all have done excellent work and have done their part in upholding the past traditions of the medical school. They know that they can depend on Dr. Mull to protect their interests. His heart and soul are in our medical school. I count it a privilege to have been associated with him in his labors and I commend him to you as one worthy of your admiration and support.

In accordance with the suggestion of Dr. Leathers, Chancellor Fulton decided to begin a two-year medical school at the University of Mississippi. But when it was opened in September 1903, there was no building in which to house it. On the top floor of the newly erected north wing of the Lyceum Building two moderate-sized rooms and one very small office room were dedicated to the cult of Aesculapius. Into this limited space were crowded the departments of histology and physiology, pathology and

bacteriology. Equipment was very scanty. One sink and about a half dozen gas jets and a few tables constituted the fixed equipment. There was one small incubator, one microtome, a modest amount of glassware and just enough microscopes to meet the needs of the original class of students, a very small number. Dr. Bullitt himself taught first anatomy and pathology, later pathology and bacteriology, and still later, anatomy alone. His account of these early struggles makes amusing reading now, but it was not a laughing matter in the early days. "If I remember correctly," he adds, "after the purchase of the necessary microscopes, there was less than \$500 left for equipment and supplies in these laboratories during that first year. There was no library except such as the teaching staff furnished."

Their greatest problem was the dissecting hall. No one on the campus wanted it anywhere near, and there was no building available for it anyway. A small frame shack consisting of an office ten feet square and a dissecting room about 10 by 15 feet, was erected in the woods back of the old dormitory, north of the Lyceum Building. The present Education Building occupies the site of this old dormitory, in one end of which the University Librarian then occupied quarters. Shortly after the dissection hall was erected she went to the chancellor complaining of the terrible stench coming from that department of the medical school, and her objections were strongly supported by other members of the faculty who alleged that life in that part of the campus had become almost unbearable. The dissecting hall simply *must* be removed far enough to prevent their being aware of the smell of the decomposing bodies.

So disturbed were these protestants that they were only partially pacified upon being informed that *the offensive building was still absolutely bare and empty* because the appropriation for the Medical School had not sufficed to enable them to procure any bodies for dissection! At that time there was no anatomical law in Mississippi,

so dissecting material could not be legally obtained. Dr. Bullitt remarks that the faculty was unwilling to resort to the ancient methods of grave robbing which many schools had employed a generation earlier. This reminds me that an article which appeared recently in *The Atlantic Monthly*, written by no other than Abraham Flexner himself, which vividly describes how more than once, in his youth, he had taken part in these grave-robbing forays.

The teachers thus found themselves in a terrible quandry, for Dr. Bullitt had accepted the chair of anatomy upon being informed by Chancellor Fulton's legal advisor that bodies could readily be obtained from the state charity hospitals. Not only did this prove to be untrue, but it was found illegal even to purchase them from medical schools in other states. Finally the Memphis Medical College, which had an abundance of dissecting material, offered their unfortunate Mississippi colleagues the courtesy of shipping bodies to them for burial in their state. These were duly buried according to agreement, but only after they had done a valuable service to the State University. Dr. Bullitt remarks that very likely all concerned were liable to prosecution under the law, but their consciences were innocent of any moral wrong. Under this arrangement they secured four bodies the first year. Later the passage of the anatomical law permitted them to supply their needs from the two state hospitals at Vicksburg and Meridian.

For three years the quarters described served while agitation for an appropriation for a medical building was being kept up. The present building was erected in 1906, but even then it was a struggle to secure equipment, for there was no regular budget for the medical school. The University administration, the Board of Trustees and the Legislature were all in favor of this new development within the University, but none of them in any degree appreciated how much money was necessary for the proper conduct of those laboratories. The

funds available were small, but after the first two years of struggle they managed to maintain "at least a respectable equipment." The students worked enthusiastically, their results being shown by the good standing they attained in their third and fourth years at other institutions, as well as in the standing many of them have attained in the profession in subsequent years. A roster of the classes during this formative time shows some who are now leaders of the medical profession in the state, as well as others who occupy positions of prominence in other states.

When Flexner visited the school in 1909 the entrance requirement was a four-year high school course or its equivalent. More than one-half the entering class for that year had had two or more years of college work. The total attendance was given as 39. From a bulletin issued in 1925 by Dr. J. O. Crider, who was then dean, I learn that up to that year 309 men had completed the two-year course, of whom 172 had academic degrees. Since it was founded this school has maintained a uniformly high standard of medical education, and the training received by the students is recognized by the best medical schools in the United States, which receive its graduates into their third and fourth year courses without examination. It is rated A-Grade according to the classification of the American Medical Association's Committee on Medical Education. The excellent work it has been doing and is still accomplishing is attested by the records made by its students in the colleges in which they have completed the medical course, their uniform success before state examining or licensing boards and their enviable reputation as practitioners of medicine.

The changes which have taken place since Flexner wrote have not been many, but they have all been milestones on the road of steady progress. As the American Medical Association has continued to raise the standards, Mississippi has struggled to meet them, and the fact that she did not collapse and pass out of existence, as the

school at Meridian did, is one of the best proofs of her intrinsic strength and true value. The physical properties of the school have been augmented and the teaching staff enlarged. A \$200,000 hospital has recently been built on the University campus which will give sufficient facilities for the teaching of physical diagnosis to second-year medical students, and will add to the clinical facilities heretofore so largely lacking.

I have been moved to dwell especially upon the wisdom of continuing this medical school upon the basis on which it now stands, neither trying to convert it to a complete four-year course, nor to set up an opposition four-year school independent of the University, as has been agitated in some quarters, because there seems to be a prevalent impression to the effect that it is of the utmost importance to educate Mississippi physicians in Mississippi. While there are undoubtedly some arguments in favor of making medical education a "home industry," I do not feel they are sufficiently weighty to overbalance those upon the opposite side. To quote once more Flexner's report, "The state (Mississippi) is indeed not favorably situated for the entire training of its own doctors. The state university, the only institution to which the task could fall, is unfortunately located . . . The first half of the school"—the last half was then being given at Vicksburg—"at Oxford, though distinctly creditable, is far from satisfying its faculty. It is a question whether the University would not do more wisely to concentrate its outlay on the Oxford branch. Up to this time the medical profession of Mississippi has been educated mainly in the proprietary schools of the Southern states. It would be fortunate indeed if henceforth its members should get at least their first two years at Oxford. To make itself the main factor in the education of the physicians of the state, the University should keep its entrance requirements in touch with the secondary school system. Its present and prospective facilities do not really warrant a higher require-

ment. Besides it can perform a more useful service by training a relatively large body of students at the high school level than by training a few at a higher standard . . . where a high school standard, or even less, is enforced, well chosen teachers, well equipped and liberally sustained laboratories, are capable of producing a very useful type of physician. The present duty of the Southern state universities is not to press prematurely to a standard that either cannot be enforced, or that, if enforced, will relegate the main army of students to medical schools without either facilities or ideals, but to endeavor to get hold of a sufficient body of students to meet the demand on an enforced basis, or improve their facilities so that this number can be well trained, and to urge the legislature to make their standard the practice standard of their respective states."

Though enough time has elapsed since this report was made to permit the sons of the men who were students at Mississippi then, to be coming up for *their* medical training at the present time, its recommendations are still sound. By concentration on this two-year course, we have, as I have just shown, been able to carry on an educational institution which, insofar as it goes, would be a credit to any state in the Union. Mississippi will never be financially able to support a four-year school which can compete with Vanderbilt, Tennessee, Tulane, Louisiana or Emory. It would require an endowment of at least ten million dollars even to start a new school, and I am certain that the state can never hope to raise such an amount for medical education alone. But the state's very poverty is favorable to the maintainance and continuance of the two-year course. As Dr. Bullitt has shown us, it is not necessary for the first two years to be so closely allied with the last two years, and in a small town, the two-year course can be carried on upon exactly as high a plane as would the four-year course be in a larger center of population. Most of the work is theoretical, or carried out in the laboratory, so it can be conducted

in connection with any well-organized university. The fact that it is a state institution and that living conditions are very inexpensive in Oxford, makes it possible for Mississippi boys to take their first two years in medicine at much less cost than they would have elsewhere. The students who prove worthy, by survival of the fittest, are prepared to go outside the state to finish their medical training, either at some of the excellent schools close at hand, such as Tulane, Vanderbilt, Tennessee or Emory, or, if they can command the time and money, to some of the other medical centers of the country, all presenting clinical and hospital facilities which their home state may never be able to provide for them.

I have recently made a complete survey of the students who have attended the University of Mississippi Medical School, which may be summarized as follows:

Total number of graduates from 1905 to 1929, four hundred and twenty-nine. Under the present requirements the degree of Bachelor of Science is conferred upon those who have completed the two years of prescribed college work and the regular course in medicine, and in addition, have done no less than thirty-two semester hours in the University's College of Liberal Arts. Of the 429 who fulfilled this requirement, 411 went on to complete their medical work and obtain the M. D. degree. It is interesting to note the different states to which these men went to finish their studies: Louisiana, 155; Tennessee, 61; Pennsylvania, 54; Virginia, 44; Illinois, 36; Kentucky, 16; Missouri, 12; Georgia, 10; New York, 11; Maryland, Arkansas and Mississippi, 2 each; and Colorado, Massachusetts, Michigan, Oklahoma and Oregon, 1 each.

Of this number of graduate physicians, 136 are now practicing in the State of Mississippi. The fact of our state's being so largely rural in its population distribution probably prevents more of our boys from settling down to practice at home. The total cost of a medical education is so high, and the remuneration from country prac-

tice so meagre, that there is little inducement for a really able man to settle in the rural districts. In order to make a living and to offer his family any of the advantages to which his social and intellectual position rightly entitle them, he is almost forced to hang out his shingle in a town of some size, so he will not be obliged to depend altogether on a country practice. Since the general use of automobiles this has become far easier than it was even a single generation ago, and in a state so located as is Mississippi, where winter storms and heavy snow need not be reckoned with, there is no need for even the remotest country dweller to go without doctors' aid, if it be urgently demanded.

This calls to my mind a recent report of a sub-committee of the Senate Committee on Universities and Colleges. This committee, headed by a man who was at one time the head of one of our state institutions of learning, recommended that the School of Medicine be discontinued because of the excessive cost and by figures showed that it cost the state \$500.00 for each medical student. He failed to show that two members of the medical faculty also teach in other departments of the university, thus reducing the per capita cost in the medical school. Likewise, he failed to credit each student with \$200.00, which sum is paid to the university in tuition and other fees, leaving a net cost to the state of approximately \$300.00 per capita per year or \$600.00 for the biennium. The total per capita cost for the whole university for the session of 1931-32 was about \$400.00.

Commenting on the above report, a certain newspaper editor agreed with the committee that the Medical School should be discontinued and relying on the validity of the report, felt justified in making the assertion that the school was useless. Let us see how useless it is. Our boys could not go to a school in another state for twice the amount they have to pay at our medical school. Our school provides a means for many poor boys to secure a medical education, who otherwise would be unable to complete a full

four years course at other schools. Does the state lose or gain? Granting that the 429 students enrolled during the life of the institution cost the state \$500.00 per capita, this will amount to \$418,500.00 for the two years course.

I have shown that of this number 136 are now practicing in the state. It will readily be agreed that these men are earning \$3000.00 per year. It will also be granted that if this is all they do earn, every cent of it will be spent in the state. Then in only one year they will have spent in the state \$408,000.00 and in a two-year period \$816,000.00. I leave it to you to be the judge of its uselessness.

In the same report we find this last paragraph which I quote: "There is a growing dearth of general practitioners in the rural districts, which we are trying to alleviate by state hospitals and charity wards. We are finding such alleviation too costly. It would be a great piece of work if our Board of Health and the medical profession of the state would evolve a plan by which general practitioners could be equipped to treat in our rural districts the usual diseases without having to take the many years of expensive training now required to make specialists by standard medical institutions."

Here is a committee trying to standardize our educational institutions and endeavoring to restore our colleges to their previous place in the accrediting associations and in the same report asking the medical profession to turn out physicians who will admittedly be below the standard set by the medical profession itself.

Is not the sick child or mother or father of the family in the rural districts just as dear to their loved ones as to the rich man or the man of moderate means in the city? Does it not require just as much skill to treat diseases in the rural sections as in the city?

To quote again from the recommendations: "In recommending the discontinuance of the Medical Department of the University, we do so with the deepest regret. However, should this department be con-

tinued, it should be standardized, and in our present financial condition we cannot meet the expenditures required by the standardizing agency."

The requirements spoken of are merely recommendations made by Dr. Rygh to the Council on Medical Education and Hospitals. So far as I can determine no effort was made by the committee to consult the accrediting board, seeking a modification of their demands.

What I have said is not intended as a criticism nor an indictment of the committee. I feel, however, that they would have shown greater interest in Medical education had they made a closer and more thorough investigation before recommending the discontinuance of the school. We have by no means lost our medical school and you as citizens of Mississippi can do a great deal toward the continuance of this much needed department at the State University.

My subject is such a broad one that it has been quite impossible for me to do more than sketch in lightly some of the chief factors surrounding Mississippi's problem in educating her boys who wish to become doctors. I have attempted to show that the two-year course now in operation in our state university offers the best and cheapest means by which a native son of our state may attain the degree of Doctor of Medicine by finishing his studies somewhere outside its borders. This plan has now been in operation for almost a quarter-century, so it can by no stretch of imagination be any longer regarded as an experiment. If anyone doubts that this system can turn out good doctors, let him glance at the records of the men here in this room. "By their fruits ye shall know them."

Likewise, I have tried to demonstrate the inadvisability of trying either to convert our present school into a full-time one, or to start a new school somewhere else. There are still far too many second rate medical schools struggling along on insufficient funds and inadequate equipment. Mississippi is fortunate that at present there are none such left within her borders, and it

is to be hoped that we will not be persuaded to undertake the folly of establishing any within the state. We do not need a greater number of doctors here; there are already 1,567 physicians for our 2,000,984 of population according to the American Medical Association Medical Directory for 1931, that is, one for every 1276 people. But we DO need men to replace those whom we lose by death or migration. If we can give those boys a solid foundation in the two years at Oxford and then send them to some of the excellent schools in the neighboring states to complete their course, we will be providing far better medical education, and giving the people of the state better medical attention without increasing their taxes. We will also be upholding the standards of medical education, not alone for ourselves but for all the people of the United States, to whose interest it is—although they themselves are seldom aware of it—that only the best instruction should be considered good enough for those to whose skill and knowledge the lives of all our people must be entrusted.

REFERENCES.

1. Pritchett, Henry S.: Introduction to report of the Carnegie Foundation for the Advancement of Teaching. N. Y., Carnegie Found., 1910.
2. Flexner, Abraham: Medical education in the United States and Canada, Carnegie Found., N. Y., 1910.

LOOKING INTO THE FUTURE.*

ALTON OCHSNER, M. D.,†

NEW ORLEANS.

The completion of the medical school training with the award of the degree of doctor of medicine represents a memorable period in a young physician's life, largely because it attests certain definite accomplishments. Graduation from medical school, however, momentous as it is, should cause practically no change in the individual as regards his attitude toward his chosen life's work. Commencement

*Ivy Day Address, June 8, 1931.

†From the Department of Surgery, Tulane University School of Medicine, New Orleans.

signifies the beginning of one's career, and this is especially true in medicine in which continuous study is imperative. All too frequently there are some among the graduates who believe that once they have become licensed physicians that their obligations as regards training are nullified. Medical graduates today are and necessarily have to be well-grounded in the fundamental principles of the science of medicine. It is not the desire nor the purpose of recognized medical schools to develop special practitioners, because such is impossible in the time allotted to the undergraduate study of medicine. It is the function, however, of these institutions (1) to train their students in the fundamentals of medicine, the prevention and diagnosis of disease, and the treatment of the commoner conditions to which the human race is subject; (2) to teach their students how to continue to obtain knowledge, since medicine is far from static, but is progressive; and (3) to instill in them the desire to do their best possible work.

You, as the graduates of Tulane University, have passed through the first period of your training and have successfully cleared the first group of hurdles. You have worked hard and have been trained according to the first requisites outlined above, and also, I hope, according to the second and third requisites as well. It is well to realize, however, that your knowledge of medicine is meager, that only the first lap of your journey has been completed, and that continued study is necessary in order that you may be able to serve your patients in the proper way. The future of a young physician just graduated from medical school is a bright one. It is important, however, for him to realize that he has certain obligations which he must meet. These obligations are: (1) to his patients; (2) to the community; (3) to his colleagues; and (4) to his alma mater. The obligations which a physician has to his patients are great indeed and never is it possible to expend too much effort in dis-

charging these duties. When consulted by a patient, careful and thorough history taking and examination are of primary and utmost importance, because only in this way can true data be obtained. Then a careful analysis of all the data which are at hand must be made in order to evaluate the various symptoms and signs in order to weigh the evidence in favor of or against various morbid processes. Only in this usually prolonged and tedious way will one be able to arrive at a correct diagnosis in many cases. It is true that frequently an individual may make a spectacular showing by suggesting a diagnosis without going through the process mentioned above; however, that same individual will make many mistakes and certainly many more mistakes than he would, had his examination and analysis been thoroughly executed. Thorough and exact methods only should be used, because medicine at its best is an inexact science, and it behooves us as physicians to make it as exact as possible. Laboratory examinations should be used as an aid in diagnosis. However, one should be extremely careful not to rely upon the "laboratory" alone to make the diagnosis, because in the majority of instances if there is a discrepancy between the clinical and laboratory findings, one should depend upon the clinical findings.

The physician owes it to his patients to be progressive, to keep abreast of the times, and to keep informed of medical progress. Unless this is done, his obligations to his patients are certainly not met. Imagine the fallacy of attempting to practice medicine successfully today if one were not familiar with the liver feeding in pernicious anemia or the use of insulin in diabetes. Equally as great advances will be made in the next ten years, and he who does not progress with the times will soon become "obsolete." Progression may be accomplished in a number of ways. A valuable way is for the physician to familiarize himself with the medical writings and to keep

abreast of the times by subscribing to and diligently reading good current medical journals. Even now, I am sure, you all realize that, in order to evaluate that which is written, it is important to develop an analytical mind, as a great deal is published which is of little significance. However, such rarely finds its way into the better medical journals.

Keeping in touch with medical progress is also accomplished by visiting educational centers and clinics, where not only may one become familiar with the methods employed in these centers, but also will be stimulated to do better work. Such pilgrimages should be made frequently, preferably at least once a year and certainly with intervals of not more than two years. In those instances where one is unable to leave his practice as often as this, it is desirable and imperative that postgraduate courses in recognized educational institutions be taken every three or four years, at which time the newer advances in the science of medicine can be presented to the physician in a systematic and complete manner.

As in any business, the physician should from time to time, preferably yearly, take an inventory in order to determine his results. No successful business man would consider running his business without taking an inventory from time to time, because only in this way can he determine what has been accomplished. From such an analysis of one's results is it not only possible for the physician to determine whether his therapy has been successful or not, but also the results will be of aid to his fellow practitioners, especially when compared with their own. Such an inventory is possible only when the final outcome of the case is known, which can be determined by means of a careful "follow-up." Altogether too frequently a physician is content with knowing the immediate results in a particular case, whereas the final end result is the one in which he should be interested. To the modern

physician subsequent morbidity should be as important as is immediate mortality.

The obligations which a physician owes his community are varied. As individuals trained in the healing art, it behooves us to practice preventive medicine not only individually, but also collectively in order that disease may be prevented as well as controlled. The early isolation of and the immediate reporting of communicable diseases to the health department should be conscientiously and rigidly adhered to. Occasionally a patient will attempt to prevail upon the physician not to report a communicable disease, because of the fear of quarantine. In granting such a request the physician not only violates the law, but also subjects the community to the dangers of the spread of disease. The physician should take an active part in the educational program of the community, especially as regards education of the public along health lines. This can be accomplished through the medium of the schools and other institutions, but should also be done through organized medicine and in a thoroughly planned and systematic manner. The assumption by the medical profession that their only duty is to cure disease once it has become established is entirely wrong and obsolete. This is indeed a day of preventive medicine, and it is necessary for the physician to do his individual part in perfecting it.

The obligations which a physician owes his fellow practitioners and colleagues are definite. In this day of specialization the need for cooperation between physicians is especially important. The subject of medicine has become so broad in its scope that it has become necessary that a certain number of physicians train themselves in one particular field of medicine. As necessary and important as these specialists are, it should be realized that they have distinct disadvantages in that by virtue of the fact that all their time and energy have been expended in perfecting themselves along one particular line their vision as regards

medicine as a whole has become more or less warped. Never will they be able to take the place of the family physician and general practitioner. The need of close cooperation between the family physician and the consulting specialist cannot be overemphasized, because only in this way can the maximum benefit be obtained by the patient. One is obligated to be ethical toward his colleagues, and in medicine probably more than in any other profession is the golden rule applicable. One should abstain especially from destructive criticism of fellow physicians, because such is not only harmful to the individual, but also is detrimental to the medical profession as a whole. Occasionally such criticism may seem just. However, unless one has all the information at hand, it is impossible to criticise fairly because of the question of judgment, which is so important in the practice of medicine. One should always stand in readiness to give aid to a colleague; and should never hesitate to ask for consultation, because not only are two heads better than one, but also often the responsibility to the patient is too great for one individual to shoulder.

The physician also should endeavor to do constructive work in some way. This may vary from extensive research performed in the educational institutions to the analysis of one's own results obtained in his private practice. Both are equally valuable. Obviously the results obtained in a small community following a careful analysis of a group of well studied cases is of more value to a physician working under similar circumstances than are the results obtained in a large educational center. It is by this careful analysis of results and the free interchange of thought that medicine can continue to progress.

Last, but not least, I wish to discuss the obligations which the physician or any other student owes his alma mater. The strength of an educational institution depends upon the loyalty of its alumni. It should be remembered that graduates of a

class A medical school, even though they have expended large sums of money in obtaining their medical education, have contributed only a small part of the sum which is necessary to provide them with that education. Medical education is the most expensive type of education, from the university standpoint, that can be obtained. There is, however, a much deeper feeling which a graduate has for his alma mater than one merely of gratitude and that is a feeling of loyalty and cherished memories, which binds him to his institution of learning. Your alma mater is, and always will be, interested in you. Make your subsequent accomplishments and progress a source of pride to her.

PLANNING THE PLASTIC OPERATION OF THE FACE.*

H. LOWRY RUSH, M. D.,
and

LESLIE V. RUSH, M. D.,

MERIDIAN, MISS.

The current conception of plastic surgery, no doubt gathered from newspaper accounts, is that of an unbeauteous, graceless or even repellant countenance by some miraculous transformation bursting forth with all the grace and splendor of Helen of Troy and the enchantment of Aphrodite. Ridiculous though this impression be, it is fostered by self-styled cosmetic surgeons, paraffin injectors and the like. So-called cosmetic surgery is mentioned here only for the purpose of condemnation. Reference is made here to that type of surgery only that is directed to correct or alleviate deformity or disfigurement of the face in an effort to restore the individual to a normal and happy existence.

Given a case with a facial deformity, the first and foremost factor to be considered by the surgeon is the amenability of that case to operative treatment. For

*Read before the Section on Surgery at the Sixty-fourth Annual Session of the Mississippi State Medical Association, Jackson, May 13, 1931.



Fig. 1a: Model of sebaceous cyst of lobe of ear before operation.

the sake of the patient and the reputation of the surgeon all doubtful cases should be refused. The planning of the procedure must be done with meticulous care. Although there are certain well-established principles of plastic surgery that must serve as the basis of treatment, each case must be carefully planned as a distinct entity.

Several days are often required for the planning of an operative procedure on the face, and since it is impractical to keep the patient before the surgeon, plaster masks may be prepared and serve as a most accurate replica. The outline of incisions may be most satisfactorily mapped on the model which serves as a guide during the operation after the incision has been made and the landmarks distorted. For the information of the patient the model serves



Fig. 1b: Same as Fig. 1a after operation.

better than the photograph to demonstrate the comparison between the original defect and the result of the reconstruction.

PREPARATION OF THE MODEL.

The patient is placed upon the table in the dorsal position. The face is thinly coated with vaseline and the eyebrows thoroughly greased. Small pieces of wet tissue paper are placed over the palpebral apertures and rubber tubes put into the nostrils for breathing. Solvite paste is prepared very thinly and first poured into the depression of the face. After that, the



Fig. 2a: Old fracture of skull with extensive depression in frontal bone and loss of entire supro-orbital ridge. Result of kick by horse fifteen years previously.

paste, all air bubbles being carefully removed, is poured over the face in a thin sheet and allowed to set. This requires but a few minutes and causes surprisingly little discomfort to the patient. This impression is removed from the face, the rubber tubes being carried with the solvite. This impression is then filled with thin plaster of paris paste, again being very careful to remove all air bubbles. When the plaster has set up the two sections are separated by immersion in boiling water. The solvite softens and crumbles away, leaving the plaster model of the face.

Plaster models of the ear can be made with more facility than those of the face,



Fig. 2b: Same as Fig. 2a three months after cranioplasty.



Fig. 2c: Plaster model of face showing defect in forehead.

the difference being here that the impression is made in two halves, a posterior portion of the solvite material being placed back of the ear molded snugly up to fit in with its contour and smoothed off around the outer edge of the auricle. This outer edge is coated with a separating fluid called separatine. Then the anterior portion of the impression is poured on and the impression of the ear is taken in a bi-valve fashion, there being anterior and posterior sections. It is removed from the ear by separating the two halves. These two sections are filled with plaster of paris cream and squeezed together. After the plaster



Fig. 2d: Metal patterns filling defect on plaster model.

has set it is placed in water and boiled, the ear model being freed by boiling the solvite impression away.

The first model (Fig. 1a) illustrates a sebaceous cyst which had involved the whole lobe of the ear, before operation. The second model (Fig. 1st) shows the ear after the cyst had been removed and healing complete.

The model here (Fig. 2c) is that of a face before operation showing an osseous defect of the forehead. This was the result

of the kick of a horse received fifteen years previously. There is an old fracture of the skull with an extensive depression of the frontal bone and loss of the entire supra-orbital ridge. The operation was planned on this model.

The defect was built up with warmed dental wax until the contour of the right side of the forehead was exactly the same as that of the left side. When this wax had hardened it was incised with a knife and



Fig. 2c: Plaster model showing result 2 years after operation.

removed in pieces the width of these metal strips you see here (Fig. 2d). These metal strips were made by investing the wax in dental investment compound, casting it in aluminum in the same manner used by dentists in making gold inlays. These metal strips were sterilized and used during the operation as models by which we cut our cartilage grafts. These grafts, when they were properly shaped, were ready to be fitted into the defect.

This model (Fig. 2e) shows the face two years after operation.



Fig. 3a: Plaster model of uni-lateral hare-lip. The incision has been outlined on the model.

The next mask shows a harelip before operation. You can see the outline of our incisions planned on the model before operation (Fig. 3a). After the lip had been cut during the operative procedure and the landmarks distorted, the model was



Fig. 3b: Same as Fig. 3a four months after cheiloplasty.

used as a guide in our reconstruction. The model (Fig. 3b) shows result after four months.

A most important factor in the planning of an operation is the position and direction of the incisions. It is well to consider here Langer's lines of cleavage. These lines of the face correspond roughly to the wrinkles which we see in the faces of older individuals. It is well to remember that an incision made across wrinkles or potential wrinkles will gap widely and make an ugly scar, whereas, an incision made in the direction of the axis of a wrinkle will give us a narrow scar if sutured properly. By suturing properly we mean to close the wound from the bottom to the surface. Most scars fall into the surgeons hands to be removed as a result of improper handling at the time of the accident. When a wound is deeper than the skin itself and the superficial fascia is cut, unless the fascia is sutured at the time the skin is sutured the scar will widen and become most unsightly.

Another important consideration is the suture material. The skin of the face should never be sutured with catgut. After catgut has set a while in the skin, it is acted upon by tissue juices and swells causing a large scar at the point where the suture passed through. After the catgut has been in place for a while it stretches and allows the wound to gap.

If the wound caused by an accidental laceration is jagged or there is possibility of infection, the wound should be thoroughly cleansed and a debridement done. We should aim always at primary union with perfect approximation of skin edges. In the face there is usually very little tension on the suture line, especially so if the incision is in the direction of the cleavage line. Very small bites should be taken with the needle and the sutures should be placed close enough together to give the best possible approximation of the skin edges.

REFERENCE.

1. Rush, L. V., J. H., and H. L.: The bridging of osseous defects of the forehead. *Amer. Jour. Surg.*, new series, 6: 805-807, 1929.

DISCUSSION.

Dr. C. A. Sheely (Gulfport): I have been practicing, as every surgeon has, plastic surgery since the advent of the automobile. We are all familiar with the irregular, often deep scars and lacerations of the face brought to us in the automobile accident cases. They come to the hospital; no patient wants a scar, and the problem immediately presents itself, the restoration of the perfect contour of the face with as little scar formation as possible and this pleases the patient very much if we can do it. These cases come often with deep lacerations, often with active hemorrhage going on and if the hemorrhage has stopped, very often the hemorrhage re-occurs just at the time we begin to work with the laceration and attempt to restore it. Now, my plan has been always first a thorough anesthesia, and that has to be secured even though you have to enlarge the incision, and where the incision is down to the deep vessel layers it is often difficult to get to the bleeding point without first enlarging the incision. Next the blood vessels and surrounding tissues are brought together, then the deeper vessels are sutured together. I think Dr. Rush's paper is very explicit along that line. Then the next point is to restore that skin incision to as nearly what it was before as possible, and I know of no procedure where equal approximation of the cut edges rewards the surgeon so much as in the proper suturing of these injuries.

As to the suture material I thoroughly agree with Dr. Rush, but at the same time I feel almost sure that so far we have not yet had a suture material which exactly meets all the conditions. The first point of all, the suture material should be non-porous, and the next point, I believe we get better approximation if it is slightly elastic. The next point is that you let your work stand for itself without interference for as long a time as you possibly can, and then another thing, a very important thing, you should not allow your suture material to stay in these incisions a great length of time, four days as a rule, on account of the very vascular condition of the circulation of the face, the wound is healed and the sutures can be removed without scar tissue.

Dr. W. H. Frizell (Brookhaven): I want to ask the essayist a question. He spoke of the nature of the sutures but he did not mention the method of applying them, whether intradermal or cross section. Please answer that.

Dr. Leslie V. Rush (closing): So far as the closure of the incision is concerned, we have sev-

eral choices. I think that if an intradermal suture is to be used the best type is that of Dr. H. Lyons Hunt. It is a combination of the intracutaneous and the over and over continuous suture. There is a tendency on the part of the intradermal suture to slip and this over and over combination (indicating on black board) prevents the suture from slipping. A suture that is introduced intradermally, regardless of what material you use, causes a slight absorption of the tissue peripheral to it and we usually get a slight depression of our scar. The closure we like best is a running suture of 00 catgut in the subcutaneous fascia with very small interrupted horse hair suture in the skin itself.

THE TECHNIC AND INDICATIONS FOR SPINAL ANESTHESIA.*

J. GOULD GARDNER, M. D.

COLUMBIA, MISS.

Since the time of Hippocrates down through the ages the art of medicine and surgery, gradually loosened from the bonds of superstition and witchcraft, has become the greatest science and the greatest blessing to mankind.

Noteworthy, and in gratitude and honor to our predecessors, was the advent of anesthesia, a godsend to the surgical patient. Time and progress marched hand in hand, just as transportation has changed from the one-horse shay to the automobile and aeroplane so have the anesthetics improved and changed. Today spinal anesthesia has a very definite place in surgery and should replace inhalation anesthesia in many operations below the diaphragm.

TECHNIC.

The technic of spinal anesthesia today is not perfect but by careful study, careful records, proper care to detail and research, the technic will improve in usefulness and safety.

The first prerequisite for spinal anesthesia is that the anesthetist be able to interpret the unusual happenings during an operation. This necessitates an understanding of the physiological background.

*Read before the Section on Surgery at the Sixty-fourth Annual Session of the Mississippi State Medical Association, Jackson, May 14, 1931.

It is a sad indictment but true, that a great number of surgeons pay so little attention to the qualifications of the anesthetic or the best suited to the patient.

Our technic is as follows: Before the patient receives any medication the blood pressure is carefully taken and recorded on the anesthetic chart along with the pulse rate and respiration. The patient receives fluids freely up to the time of operation excepting gastric and high intestinal operations. One and one-half hours before operation the patient is given a capsule of one and one-half grains sodium ethyl-1-methyl-butyl-barbiturate. This is repeated 30 minutes before operation. The dose varies according to the patient. If for any reason vomiting occurs one-eighth to one-fourth grain of morphine is given.

The patient quieted is taken to the operating room, placed on the table on her right side. The back is prepared with a 4 per cent mercurochrome-acetone-alcohol mixture. With the equipment ready for performing the lumbar puncture, the patient's knees are flexed upon the abdomen, the head bent forward, so that the chin rests on the chest, the back bowed out. The shoulders and hips should be in the same plane.

The position of the patient during spinal puncture is a matter for each anesthetist to decide. Our preference is with the patient lying prone, as indicated above. There are many patients operated upon with spinal anesthesia who are physically unable to sit up, others may be frightened, shocked or faint. Surely they are more comfortable and safer in the horizontal position than they are sitting humped over on the edge of the table. If the surgeon cannot do a correct spinal puncture with his patient lying correctly, his technic is at fault, not the position of the patient. He needs training—not posture.

Puncture: Locate the interspace desired, then using a 25 gauge needle, two c.c. of one per cent novocaine and three-fourths grain of ephedrine are injected into the skin and the interspinous ligament. Spinal punc-

ture is made in the center of the wheal raised by the first injection. The puncture should be made at right angle to the long axis of the spine—care should be taken not to deviate to right or left and never attempt a puncture through the laminae. When the puncture is made there is a slight snap, a loss of resistance to pressure, the needle advances easily, the stylet is removed and spinal fluid should flow through the needle. If no fluid appears rotate the needle on its own axis—then if no fluid go a little deeper. If bone is felt it is the body of the vertebra, and you have deviated to one side. Withdraw needle and reinsert at exactly right angle to the spine.

The kind and size of a lumbar puncture needle is important, it should not be larger than a 20 or 22 gauge, made of rustless steel with a point ground off to a taper of 45 degrees. A small needle will not injure the cauda equina, there will be less seepage of spinal fluid through the puncture and less, if any, intradural hemorrhage. There will be no rust left in the puncture track and as these needles are very flexible there is little danger of breakage in the spine—a very embarrassing accident.

We have found that by proceeding through the skin and the interspinous ligament with the tack described by Sise,¹ there is a definite advantage over using the ordinary heavy lumbar puncture needle. The tack makes the opening through the skin and tough interspinous ligament, but is not long enough to pierce the dura, so it is possible to insert a very fine needle and stylet through the lumen of the tack and this penetrates the dura, making a very fine hole which closes spontaneously, if one keeps the bevel pointed toward the ceiling so as merely to split the longitudinal fibers of the dura. This technic will reduce post-operative headaches to a minimum.

The dura penetrated, the stylet is removed and the spinal fluid drops from the needle into the sterile novocaine ampoule previously opened, from two to four c.c. are

dripped into the ampoule. The stylet is inserted into the needle very cautiously, just far enough to stop further leakage, the novocaine is dissolved in the spinal fluid in the ampoule by drawing it back and forth two or three times through the syringe all of the fluid is drawn into the syringe, the air expelled, the stylet removed and the syringe carefully locked on the lumbar puncture needle. The solution is then injected at the rate of one c.c. to every two seconds; the rate of the injection and amount determines somewhat the height of the anesthesia desired. If barbotage is used once or twice during a total of four, six, never more than eight c.c. of fluid, the anesthesia will go to the costal margin.

Some workers have advocated large doses of novocaine. Denman regularly uses as high as 300 mgm. We never use over 200 mgm., and for many operations 50 to 100 mgm. is sufficient. For example, in suprapubic cystotomy, in urethrotomy or for a painful cystoscopy 50 to 60 mgm. of novocaine crystals in the third lumbar space give an excellent result. The lower the segmental nerve block, the safer the case should be.

Immediately after the injection is made the patient is turned on his back and put in the Trendelenburg position. Blood pressure readings are taken every three to four minutes for the first half hour, afterwards every five minute. The previous reading made in the patient's room is used as a guide, readings above or below this point are carefully noted.

If there is a drop in the blood pressure of one-third the normal preoperative level we begin immediate treatment. Early treatment of vascular depression is one of the best of prophylactics against further depression and possible collapse. Before a certain point is reached in the progress of the depression, the blood pressure may be easily controlled by means of subcutaneous medication, but after this point is passed, the circulation in the tissues is too slow to

pick up medication readily—the patient therefore is out of control by the simple method, and intravenous medication becomes necessary.

I will add—The point at which treatment should be started varies. In general it should be started earlier in a rapid drop in pressure than with a slow sag. It is important that treatment should not be delayed until the patient is in poor condition, obviously it is essential when spinal anesthesia is given, the necessary equipment subcutaneous and intravenous medication be immediately available. The equipment needed—sterile ampoules of ephedrine, epinephrine, caffeine sodium benzoate, and intravenous outfit, salt solution and glucose, a gas machine with oxygen and carbon dioxide.

INDICATIONS FOR SPINAL ANESTHESIA.

Must be considered as relative. In a majority of cases in which the operative field lies below the diaphragm are suitable for this type of anesthesia; at present, operations above the diaphragm are not advisable. It is the ideal anesthetic for lower abdominal surgery, hysterectomies, prostatectomies, bladder cases, perineal operations, cesarean sections and numerous vaginal and rectal operations. According to Lundy,² "Spinal anesthesia continues to remain popular for preparing patients for operations on the large bowel."

In the acute abdomen this form of anesthesia becomes almost a matter of life or death. Morbidity is lessened, convalescence shortened, and the mortality rate lower.

Webb³ says, "There is probably no operation where spinal anesthesia is more indicated than in intestinal obstruction. The marked relaxation of the abdominal wall together with the contraction and relative quietness of the intestine is a joy and a revelation to the surgeon accustomed to working with ballooned bowels constantly forcing themselves out of the abdomen." With "spinal" there is "absolute abdominal silence." There is less danger of pulmonary complications, especially where the patient

has or recently has had a respiratory infection and it is the anesthetic par excellence for the patient with pulmonary tuberculosis.

Experience has shown that spinal anesthesia does not detrimentally alter the clinical course of patients suffering from an extreme urinary sepsis and is, therefore, an invaluable aid in urinary tract surgery.

"Spinal" is ideal in orthopedic operations on the lower extremities and in reduction of fractures of the femur with marked overriding, for it completely relaxes muscles and joints and shock is absent.

No diabetic patient today should have a major operation below the diaphragm under inhalation anesthesia.

Dehydration is not produced with this form of anesthesia which is an important factor in operation on cases of toxemia and eclampsia.

Shock is eliminated—the reflexes are blocked—tedious dissections are carried on with little if any change of condition.

According to Pitkin, "It is preferable in cardiacs, nephritics, alcoholics, addicts or patients suffering with primary or pernicious anemia."

Spinal anesthesia may be given to prepare a pneumonia patient for an emergency operation or to an influenza case. It is the anesthetic of choice for perforating gastric, duodenal or typhoid ulcers.

Contraindications are extreme-hypotension, infection on the back at the sites of puncture, positive blood Wassermann, cloudy spinal fluid and spinal deformities preventing proper puncture. It is not indicated in extremely nervous or otherwise uncontrollable patients; patients with convulsions or maniacal insane patients.

It is our opinion that spinal anesthesia should not be used where conduction or local anesthesia would do as well and it should not be used in operations consuming less than 20 minutes.

Pitkin: "I do not wish to advocate only the use of spinal anesthesia or to detract from the merits of inhalation anesthesia,

but I wish to emphasize that experience has taught me that with their use we can prevent the aftermath of operations—the nausea, vomiting, distension, ileus, acidosis, pneumonia and innumerable complications, which are directly or indirectly attributable to inhalation anesthesia.”

Spinal anesthesia has come to stay, and it behooves us to learn all we can about it and to use it, not indiscriminately, but in properly selected cases. The measures of success achieved depends on the trained, intelligent cooperation of those surrounding the patient.

BIBLIOGRAPHY.

1. L. F. Sise: *The New England Journal of Medicine*, May, 1929.
2. John S. Lundy: *Minnesota Medicine*, April, 1930.
3. Griffith F. Webb: *Southern Medicine and Surgery*, July, 1930.

DISCUSSION.

Dr. John C. Culley (Oxford): It has been a great pleasure to me to see the interest which has been aroused in spinal anesthesia in the last twelve months. The last issue of the *American Journal of Surgery* contained nine articles on spinal anesthesia. While those articles would rather muddy the water they bring out lots of points that should be considered. I want to congratulate Dr. Gardner on his paper. It has the three essentials of an excellent paper; it was brief, second, wise, and third, it was complete.

Those points he brought out with reference to technic there is no use of my reiterating. I simply want to mention the technic I use. The first thing is the preparation of the patient in acute cases. The patient should have the same preparation in acute cases as in other forms of procedure. I might say I am absolutely sold on spinal anesthesia, but not sold on any particular anesthetic. The technic that I have used with spino-cain differs somewhat from the technic I have seen recommended. In acute cases I use sodium amylal, two capsules by rectum. In elective cases, I give one capsule at bedtime before the operation the next morning; the next morning two capsules of sodium amylal are administered about one hour before operation; along with the amylal, three-fourths grain of ephedrin. This brings out the point of how often I have used ephedrin. So far, I have been regular in using ephedrin in 501 cases reported at the last meeting, and I have since that time done about 175 cases and used ephedrin until I read this article in the *American Journal of Surgery*. I decided to leave off the ephedrin and I did in two cases, and both patients

went into collapse and I had to administer vaso-motor constrictors to bring my patients around. Three-fourths grain of ephedrin one hour before the operation, two capsules of sodium amylal about one hour before the operation, and about fifteen minutes before the patient is brought into the operating room, one-fourth grain of morphine. That brings the patient into the operating room in a quiet state.

I have drawn a little diagram to show the position I am placing the patient in today. The top picture should show the table perfectly level. You will notice that the hips being wider than the shoulders, the head is thrown downward and naturally the spine is in the Trendelenberg position.

The thing you are cautioned in doing with spinal anesthesia—remember that spino-cain contains alcohol; it is of lighter specific gravity than spinal fluid. That being the case, if you inject it with your patient on the table with your table level, you are going to get the solution to float upward which is towards the coccyx, so the technic I have been using is to elevate the head of that table until the table shows an elevation of seven to ten degrees. If you will do that, and then look at your table with a ten degree elevation, your spine is almost level or a little elevated. I go on and make the injection just as Dr. Gardner described to you.

Dr. J. K. Avent (Grenada): I am going to discuss one phase of this question, that is, the technic of what to do after your patient begins to have the collapse. I always give the three-eighths or three-fourths grain of ephedrin two hours before anesthesia. I always use the spino-cain because it has the ephedrin in it. If you notice your patient's pulse getting weak, give adrenalin, because it is the best thing you can find; it is a vaso-motor constrictor and will bring your patient back.

When you notice your patient getting weak, pale around the mouth, not noticing what you are doing, give adrenalin. If you can't get it into the veins inject it into the muscles and massage three or four minutes. You will get quick results.

It is a pretty good idea when you give spinal anesthesia to let some one else give it sometime and you watch the patient's pulse. I had never watched a pulse until a few days ago when I had a fractured femur, and gave spino-cain, and through curiosity I watched the pulse.

I always give atropin because I think it helps the respiration all the way through. It has become a habit with me to give 1/100 grain of atropin with $\frac{1}{4}$ grain morphine within an hour before the operation. Aromatic spirits of ammonia is excellent. I let them have ice and ice water all through the operation. If they begin to get weak, give the aromatic spirits of ammonia. I

often take up the household ammonia and let them take a few whiffs of that. It gets their mind off of what is going on and relieves their anxiety.

If you have a patient that has a sense of touch, and they get pale and worried because of it, give them a few drops of ether. Quite often I give one or two cc. of ether hypodermatically.

Another thing, some of them have a very low respiration. Have your oxygen come through a glass tube and through a little water so you can tell how much you are giving your patient. Give them a little oxygen and it will work splendidly, especially when they have this weak condition. I have only had one patient to have any trouble with the heart following spinal anesthesia.

Dr. Lucies McGehee (Memphis, Tenn.): I thank you for the privilege of discussing this paper. I can add nothing to what Dr. Gardner has said as to the general value of spinal anesthesia. As Dr. Culley has said, I am sold on spinal anesthesia, but not entirely on the agent to be used.

I think I might contribute something to this discussion by getting away from generalities and other establish principles of selecting your patients and anesthetic and careful technique, and relate to you our experience in the Memphis General Hospital with the use of spinal anesthesia and certain conclusions we have come to with reference to its use. To begin with, about two years ago we began it, and the records recently showed there had been administered in the General Hospital by the surgical staff—I want to call your attention that that is by the head of the division down to the internes—men with limited experience in the use of spinal anesthesia—there have been close to 1500 cases in which spinal anesthesia was used. In the first 100 cases novocain was used without any untoward effects except that the anesthesia was too brief. At that time we were not using enough. We never had used in those cases 120 milligrams of novocain. About that time Pitkin's work was brought before the public, the use of spinocain. We used spinocain in 1000 cases. As Dr. Culley brought out, the technic is entirely different when you use spinocain instead of novocain. The specific gravity of the spinocain is less than that of the spinal fluid. When it is injected it will tend to rise according to the position of the patient. It acts very much like the globule of air in a plain spirit level; in other words, depress that end and it will rise, and depress the other end and it will go the other way. Position is very important in the use of spinocain.

Our experience with spinocain shows there were marked variations in the blood pressure. It is true to a certain extent you can limit the degree

of anesthesia by position of the patient, but for practical purposes you should have a skilled anesthetist, skilled in watching the effect of the blocking of the spinal rami. Even under those conditions there was marked falling of blood pressure. I find in 1000 cases there were three deaths; that is a pretty high percentage of deaths. These deaths, though, probably, would have occurred with any type of anesthesia, except one, possibly, of the deaths.

Dr. S. E. Field (Centerville): A few weeks ago I had the pleasure of visiting the Houston Clinic at Houston, Texas, and I would like to mention a point I saw out there in connection with spinal anesthesia. Dr. Stokes there is doing a great deal of his work with spinal anesthesia. Immediately after the injection of his anesthetic, with the table horizontal, he turns the patient over on his abdomen and leaves him in that position until he gets anesthetized as high as he wants or as low as he wants.

In some of our cases we prefer to get complete anesthesia. Sometimes we get it on one side and not on the other. I am wondering if we get proper dissemination of the agent; I am wondering if turning the patient over on the abdomen at times would have some effect on those cases in which we do not get perfect anesthesia.

Dr. A. E. Gordin (Jackson): I am very much sold on spinal anesthesia. I think I am one of the few doctors here who are. I think out of eight or ten surgeons only about three of us are using it to any great extent. I believe you can't be fanatical on spinal anesthesia as you can't be fanatical on other things. We have a good agent here we should use and should look for the contra-indications.

I don't know when I have heard a more conservative and well rounded paper than Dr. Gardner's paper.

We must get away from the prejudice against spinal anesthesia among the doctors; so many surgeons are using spinal anesthesia but saying definitely that if they were to be operated upon they would not have it used upon themselves. We must be confident that spinal anesthesia is not dangerous and the doctors are not afraid of it before we use it too much on our patients.

In 200 cases in which I have used it, I have had two cases of very severe headache, so severe this headache could not be relieved with morphine in less than a week or ten days. Some of the bad results we get are because we do not get complete anesthesia. My trouble is that in a few cases I have gotten no anesthesia and in some cases the anesthesia was over in 20 minutes or a half hour, before the operation was finished. I don't know yet how to regulate the time it takes. One of the great troubles I have had with

it has been in nervous patients. They are dead from the diaphragm down. They almost go into hysterics and amyltal certainly prevents that to a great extent. In one or two cases where we have had respiratory failure following spinal anesthesia, we have had no trouble keeping the patient breathing with carbon dioxide administered during that time.

So far as the turning of the patient in any direction, I think that within about five or six minutes of the time you can inject the spinal anesthesia and scrub up again, it makes no difference how you turn your patient; the spinal anesthetic is fixed and will not move.

In caesarean sections you do not get a relaxation. You get a uterine constriction just as much as you do with any other anesthetic. The uterus constricts right down to the size of your two fists in a caesarean section. Why that is I do not know.

I have nothing to add except to say I had one case where I am sure I got into the spinal canal and I could not get the spinal fluid. I have had some cases where I got blood on my needle, and I always remove the needle and reinsert it.

I wish to thank the essayist and I have enjoyed the discussion very much.

Dr. A. G. Payne (Greenville): I think Dr. Gardner selected the most important subject before surgery today. I want to endorse everything Dr. Gardner said in his paper. There are a good many points of experience I would like to go into this morning. Dr. Dickerson of McComb City last year brought to our attention the fallibility of spinal anesthesia, and that has been a great lesson to me and my fellows. For instance, you can't rely on any one mode of anesthesia. Why should we rely on any one mode of anesthesia more than we do any other therapeutic measure in medicine today?

I recently had a case in which something went wrong. I was operating upon an immense fibroid tumor, under spinal anesthesia, and I had a hard time getting this fibroid delivered. During that time the puncture made into this fibroid had put considerable blood into the upper abdomen, and I had to resort to ether anaesthesia to get this blood from that portion of the abdomen that was unanesthetised. Of course, I had not intended to do any work at all in the upper abdomen. A question as to whether or not there was some bleeding point higher in the abdomen was the reason I was so anxious about this blood. Probably the blood wouldn't have done any harm. Now then, in the well organized hospital where you have the ether, the gas, and the local, and by the way I want to say here that the most universal anesthetic that we can use is the local anesthetic; there are so many places that we can use the local

anesthetic where we are today using spinal or using general—so then, as to switching from one anesthetic to another, which we frequently have to do, if we are in a hospital where we have these measures to switch from one to another it is all right, but say you are not in a hospital or out some place operating where you don't have these facilities, then it makes it very hard altogether on the patient, and that is the one we should consider most.

Relative to the blood pressure, I have seen many times the blood pressure drop so low that we would begin to get uneasy about the patient and in those cases adrenalin brings up the blood pressure better than anything else.

Chairman T. P. Sparks, Jr. (Jackson): Spinal anesthesia in the last few years has become quite a success. I believe in it. I don't think that any surgeon who has ever used spinal anesthesia can resist the urge to use it again; its marvelous relaxation naturally tempts one to use it. Still, I think statistics show it is still a rather dangerous anesthetic. Statistics show, I think, the mortality runs about one in one thousand. That is a greater rate than we have with our inhalation anesthetics. As Dr. McCuskey said in his paper, they used spinal anesthesia in Rochester in about 11 per cent of their cases. I am sure here in the south some of us use it in about 99 per cent of our cases. Perhaps both of us are a little off. I believe spinal anesthesia should be used only in those cases where an inhalation anesthetic is contra-indicated. There are some other cases where we use spinal anesthesia instead of a general anesthesia, however, even though a general anesthesia is not contra-indicated, namely those cases where a complete relaxation will enable us to operate with more facility and thereby reduce our mortality rate. I think there have been statistics to show because of the facility with which a surgeon can operate the mortality rate is lowered under spinal anesthesia. I think in those cases it should be used.

One word about the use of ephedrin. There seems to be some hesitation to use it now in cases of low blood pressure. The worst reaction we get is not in our low blood pressure cases, but in the high blood pressure cases, and if we seek to use it in those cases there is where we are going to come to grief.

One word about the height of anesthesia. High anesthesia is usually obtained by high puncture but if one will inject the solution slowly and withdraw it and re-inject it several times, a relatively high anesthesia may be obtained even with a low puncture.

Dr. J. G. Gardner (closing): I wish to express to the gentlemen present my gratitude for the way you have discussed my paper, and I wish

especially to thank the visitor, Dr. McGhee, for his discussion of my paper.

It is impossible of course to write very much on spinal anaesthesia when one is limited to twenty minutes to the subject on which volumes might be written.

Referring to Dr. Culley's discussion of his results with sodium amytal, I agree in every detail with Dr. Culley in the use of this drug. We have used it in our work rather extensively. For the past few months we have been using Nembutal (Sodium Ethyl—[1-Methyl-Butyl]—Barbiturate) but have not used it in a sufficient number of cases to prove any superiority of this drug over sodium amytal. We have not used spinocain for the reason that novocain dissolved in the spinal fluid gives us most satisfactory results, and because the beds in the hospital are not adjustable so that we can keep the patients' heads lowered for the required time as suggested by Dr. Pitkin. It is very seldom in cases where you use 8 c.c. of the spinal fluid that you have failure of the anaesthesia reaching as high as the diaphragm. We use the 8 c.c. by withdrawing 4 c.c. of the spinal definite bony borders could be palpated around

The most unpleasant symptom we have in our cases of spinal anaesthesia is nausea which we believe is best treated by increasing the Trendelenburg position and have the patient take deep inhalations. If this does not relieve the symptom more energetic treatment should be instituted, and as outlined in my paper, the most important thing is to begin treatment early. Adrenalin or ephedrin may be given intramuscularly in a slow drop, but in sudden drop it is important that prompt intravenous therapy be given.

We have no hesitancy in using ephedrin as suggested by Dr. Culley. His suggestion is good and it should be used as he advises.

AGRANULOCYTIC ANGINA.*

C. L. BROWN, M. D..

NEW ORLEANS.

Agranulocytic angina or agranulocytosis was first described by Schultz in 1922. It is a most interesting symptom complex and a condition equally important to the general medical man and specialist. It can be defined as a very severe ulcerative angina, usually manifested by signs of an acute infection and associated with marked prostration, and extreme leukopenia with lack of granulocytes. Unfortunately, it has not

been recognized in its beginning, therefore it has been accredited a mortality of around 96 per cent.

Since 1922 there have been perhaps 175 cases reported. In 1927 Kastlin collected 43 cases. Of this number, only three cases recovered. In 1928 Hueper collected 125 cases, and out of this group six cases recovered.

The diagnosis must rest on the composite clinical picture, and not on various symptoms. Without a complete blood picture, the diagnosis cannot be made. The blood changes are distinctive in the absolute reduction or complete disappearance of all granulocytes, polymorphonuclear neutrophils and eosinophils, from the circulating blood stream. The blood picture is that of a leukopenia with a decided increase in lymphocytes—sometimes 95 to 100. The coagulation time, as well as the bleeding time of the blood, is practically always normal. The blood platelets may be slightly diminished. The haemoglobin and red blood cells have been normal in the majority of cases. The white blood count has been the interesting and diagnostic factor. A leukopenia of 1200 to 1500 white blood cells per cu. mm. at the onset of the disease is usually the rule. In some cases, however, a much lower white cell count was noted when the first blood count was made. As the disease progresses, the white cell count continues to fall, the lowest count recorded being 100 cells per cu. mm.

Cases of agranulocytic angina may occur in both sexes, the greater percentage occurring in women. The usual average age is about forty years. As a rule, the past histories in general are not significant. A period of general debility has been present in some cases. The onset is usually abrupt, with high fever and extreme prostration. The patient presents a picture of being very sick. The temperature may rise quickly to 102° to 104° and remain there. The patient develops a severe sore throat, rapid pulse, dysphagia, malaise and may have one or repeated chills. There may

*Read before the Louisiana State Medical Society, New Orleans, April 14-16.

be some dyspnea. A rash, herpes labialis, vomiting, diarrhea, abdominal pain and jaundice may occur, but are not constant symptoms, the latter named symptoms occurring in about 50 per cent of the cases. Less often there is headache and general muscle pain. Pharyngitis and stomatitis develops at the onset or within a day or two in all cases. The tongue becomes coated and the breath is fetid. The tonsils, pharynx, gums, tongue, mucous membrane of nose and larynx usually undergo ulceration and superficial necrosis. The tonsils are markedly hypertrophied and covered with either rapidly spreading ulcers or a dirty greyish membrane. A membrane is usually attached to the ulcerated areas and may extend to adjoining nonulcerative tissues. The membrane and necrotic tissue can easily be removed, and there is not a great deal of bleeding. Cultures from the mouth are negative for diphtheria bacilli. Various organisms have been described, the most common being organisms of Vincent (Vincent's angina), *pyocyaneus bacillus* and the usual mouth invaders. While there is not a generalized lymph node enlargement, the cervical lymph glands, as well as the submaxillary, may be slightly enlarged and tender. In addition to the above named ulcers, there may be ulceration of the anus, vagina, cervix and sometimes the skin. The liver and spleen may be palpably enlarged, sometimes associated with tenderness on palpation. In quite the majority of cases, the heart and lungs are negative.

The course of the disease is usually acute and very rapid. The patient, as a rule, grows worse and death results after a coma of two to seven days. A few cases have lived weeks and months, while a small percentage have gotten, seemingly, entirely well. The prostration and ulceration shows marked progress from day to day, or even from morning to night. The white blood count and differential shows definite change from hour to hour. It absolutely disappears in the majority of cases before death. As

said before, the patient is severely ill from the onset. A state of exhaustion appears early showing a definite lack of physical resistance. Nourishment can be taken only with difficulty. Periods of temporary improvement have been noted but death occurs in more than ninety per cent of the cases.

The gross findings at autopsy are most interesting. In addition to the ulcerations of the oral cavity, rectum, vagina and skin, ulcerations are frequently seen in the esophagus, stomach and at all levels of the intestinal tract. The lesions have little surrounding inflammatory reaction involving only the mucous membrane. Clotted blood has been noted in the stomach and intestine. Kastlin reports that in one of his cases, ulceration of the heart valve was found. A broncho-pneumonia is usually present. Examining the liver grossly, the surface shows some cloudy swelling. Small hemorrhages are usually associated with the bowel ulcerations and may be noticed on the abdominal viscera, as well as on the surfaces of the lung. On gross section the spleen, which also may be enlarged, presents a pulp which is firm and dark red. As a rule, the bone marrow is usually pinkish or red, but sometimes it is fatty in appearance. Grossly, the kidneys do not show anything of note.

On microscopic examination, the necrotic areas show clumps of fibrin, bacteria and red blood cells, while beyond the necrosis, there is not any inflammatory cell reaction, except an occasional lymphocyte, endothelial and plasma cells. There is noted in the mouth ulcers a peculiar lack of cellular response. The necrotic portion is sharply bordered by edematous tissue. Ulcerations of other locations also show a similar lack of cellular reaction. The blood vessels are most of the time thrombosed and contain fibrinous plugs.

Kastlin, of Pittsburg, was the first to report the pneumonic lesion. Since then other writers, among them Rose and Hauser, Heuper and O'Connor and Windham have

noted this. The alveolar spaces of the consolidated portion, (you will recall that I have stated that most cases terminated in a bronchial pneumonia) are completely filled with a fibrinous and hemorrhagic exudate, with practically no inflammatory cell reaction. Polymorphonuclear leukocytes are rarely present, but occasionally lymphocytes and endothelial cells are deposited on the edge of the plugs of fibrin. The fibrin forms a compact network, often more dense at the margin. Under the microscope, the bone marrow shows almost a total absence of white blood elements. The sections appear quite "cell poor." There are occasional clump of endothelial cells. There is in the typical case only an occasional granular cell present.

The lymphoid centers of the spleen, under microscopic examination, are less prominent than usual, while the reticulo-endothelial structure of the pulp shows marked proliferation. The lymph nodes show a decrease in lymphoid germinal centers and prominence of endothelial cells. Under the lens the liver shows a cloudy swelling. There is also evidence of a slight perivascular lymphoid infiltration.

The kidneys, when examined under the microscope, show hemorrhages of the renal pelvis, a cloudy swelling, and sometimes lymphoid collections about the glomeruli.

Agranulocytic angina must be differentiated from pernicious anemia; acute poisoning; severe secondary anemia; aleukemic leukemia; sepsis. It is diagnosed from:

(1). Pernicious anemia by the extreme prostration, angina and the absence of the typical blood picture of a low red count, high color index and usually normal white blood count.

(2). Poisons, such as arsenic, benzon, thorium and the roentgen rays, may produce leukopenia with granular cell decrease. However, the poisons, in general, may be ruled out by a careful history of the case.

(3). Severe secondary anemia by the history, and the absence of the blood picture of a uniform definite decrease in both

red and white blood cells with a normal differential.

(4). Aleukemic leukemia by the blood picture, symptoms and absence of generalized increasing enlargement of the lymph glands.

(5). Sepsis by history, physical findings and blood picture.

In the treatment of agranulocytic angina, there is no uniformity of opinion as to the efficacy of therapy. Personally, we believe there is only one form of treatment, and that is repeated blood transfusions. It has been our good fortune to see two cases recover by the above treatment, while on the other hand, we have seen some four or six cases in which it did not do any good. L. Fisher reports a case successfully treated with immuno-transfusions. His deduction was that, since the disease is of an infectious origin, that the serum from a recovered or convalescent patient might contain immune bodies. Intravenous neo-salvarsan and stimulating doses of roentgen ray have been used in an attempt to stimulate the bone marrow function.

Local treatment is directed toward alleviation of sore throat and pain by frequent gargles and various antiseptic applications. Flower's solution and emetine hydrochloride or salvarsan and neo-salvarsan, a 10 per cent solution, freshly prepared in glycerine, are suggested for cases showing Vincent's infection.

I would like to present two cases, one of which is particularly typical. They are as follows:

CASE REPORTS.

Case 1. Mrs. L., white, female, aged forty-two years. Chief Complaint: Painful throat and swelling of right side of neck. Present Illness: Trouble began about nine days ago, when the patient awoke in the morning to find her throat very sore and the right side of her neck, just beneath the mandible, red, swollen, and painful. She was unable to swallow without increasing the pain, and to talk was difficult. She stated that she felt feverish, generally ill and, to give her exact words, that she was "completely knocked out." Her condition continued to get worse and she called her physician, who advised her to go to the hospital.

This she did on June 12, 1930 at 5:40 p. m. Past History: Patient had tonsils removed twenty-one years ago. She had had occasional naso-pharyngitis during the winter months. Family History: Negative. Physical Examination: Physical examination revealed a fairly well developed, well nourished white female, who appeared very sick. Head: Throat was red and inflamed. Slight ulceration on the left side of the tonsil fossa. Neck: Slight swelling and tenderness on right side. The anterior cervical glands on the right side were swollen, hard and slightly tender. Chest: No change in voice or breath sounds, and no rales. Chest apparently negative. Heart: No murmurs, pulse rapid. Abdomen: No palpable masses, tenderness or rigidity. Extremities: Negative. Temperature: 101°. Urinalysis: Negative, except a slight trace of indican. Blood Picture: June 12, 1930. Erythrocytes: 4,170,000. Hemoglobin 79 per cent, leukocytes 3,750, small lymphocytes 80, neutrophils 20. June 15, 1930 erythrocytes 4,475,000; hemoglobin 70 per cent; leukocytes 2,200; small leukocytes 87, large lymphocytes 10; neutrophils 3. Blood culture on June 16, 1930 was negative after seventy-two hours. Smear from tonsil area showed occasional pus cells, epithelial cells, few streptococci, staphylococci and Vincent's bacilli. A diagnosis was made at this time of agranulocytic angina, and on June 17, 1930 blood transfusion by the head method was performed. Three hundred c.c. of pure blood were given the patient.

Case 1.

Date	WBCS	Polys per cent	Myelo per cent
June 21.....	3,750	18	0
June 23.....	5,000	16	0
June 24.....	5,750	20	0
June 25.....	6,750	28	0
June 28.....	7,000	67	0
Oct. 17.....	2,700	12	0
Oct. 23.....	3,250	14	9
Nov. 1.....	2,125	0	12
Nov. 2.....	2,250	0	5
Nov. 6.....	1,850	0	20

The important blood findings are shown in the above chart.

The patient was much improved; her temperature subsided; throat condition practically cleared up, and, consequently, she was allowed to go home on June 28, 1930.

During the interval from June 30 to about October 1, 1930, the patient was able to be up and about the home with very little discomfort. Shortly after this, there developed ulcerations on her fingers, back and in her nose. She returned to the hospital on October 9, 1930 for blood transfusion. At this time, 300 c.c. of whole blood were given her by means of the direct method. There

was moderate reaction. Patient was allowed to go home on October 10, 1930. From this time on the patient was most uncomfortable; she was unable to retain her food, in fact, it was most difficult to get her to take anything. She had a daily temperature, and ulcers appeared again in the tonsil fossa, mucous membrane of the mouth, nose fingers, elbows, back, and even the vagina and anus.

On October 17, 1930 she was admitted to the hospital for a third blood transfusion. Three hundred c.c. of pure blood were given her by the direct method. She was allowed to go home the following day. Patient got progressively worse, most uncomfortable.

Patient was admitted on October 23, 1930, and 300 c.c. of pure blood were given her by the direct method. Reaction most severe, temperature going to 106°, and gradually returning to around 100. She was allowed to go home the following morning. During the following week, the patient was desperately ill, gradually growing weaker day by day. At this time, it was practically impossible for her to retain any food.

On November 1, 1930, 350 c.c. of pure blood were given her by direct method. You will note that, regardless of our continued blood transfusions, the patient did not respond. The reaction was most severe. On November 7, 1930, anti-streptococci serum was given. There was a marked reaction, and on this same day, patient complained of a catch in right side on cough and deep respiration. Few rales were heard in the axillary line, also tubular breathing was heard over the back. The patient was very weak, pulse irregular, and semi-conscious. On November 8, 1930 friction rub, coarse rales, tubular breathing over base of right lung—posteriorly and in axillary line. Definitely pneumonia. From this time on until the end, which came at four o'clock on November 10, 1930, the patient did not regain consciousness.

AUTOPSY.

External Examination: Body is that of an adult female about 45 years of age. It is well developed and fairly well nourished, weighing about 120 pounds and measuring about 5 feet 9 inches in length. Postmortem rigidity is absent. Postmortem discoloration is present around the base of the neck and over the dependent portions of the body. The skin is warm, pliable, and over the lower abdomen shows evidence of past pregnancies. There are also ulcerations located in various portions of the body, around the base of the neck, posteriorly over the buttocks and on the sides of the legs and back. These ulcerations vary in size from pin point to 3 cms in diameter and they have a scaling crust over the surface. Others show small papules and around the base of the

neck are small reddish spots. (Only the relevant data are included in the autopsy report).

Upon opening the pleural cavity, both cavities are partially filled with sanguinous fluid. The right pleural cavity shows about 1000 c.c. of this fluid while the left shows about 250 c.c. The right lung shows the upper portion of the upper lobe to be solidified and a purplish red color. The rest of the lobe is light pink and crepitant with the exception of the posterior portion of the lower lobe which is purplish red and solid. There is adhered to the outer surface a moderate amount of yellowish purulent exudate. The left lobe shows small abscesses of the surface of the upper lobe attaching itself to the thoracic wall in the region of the second rib near the midline. The posterior portions of the lower left lobe is collapsed and purplish red in color. The rest of the lung is light pink and crepitant. Upon opening the pericardial cavity the pericardium is found to be smooth and glistening. There is no free fluid in the pericardial cavity. The heart is enlarged and dilated. It measures 14 cms from the base to apex and 12 cm in width at the base. At the anterior surface near the base, there is a white sac measuring 1 cm in diameter. The right auricle is found to be distended with blood. The liver is 25 cms in width and 28 cms in length and 10 cms in thickness at the right dome. Its outer surface is smooth and glistening and of a reddish brown color. There is a small yellow pinpoint area in the left lobe which is 1 mm in diameter. It offers little resistance to the knife. It is mottled yellowish pink in color, the predominating color being yellow. The spleen is $1\frac{1}{2}$ times its normal size. It is soft and pliable in consistency. Its outer surface is purplish red in color. On incision one finds that the cut surface offers little resistance to the knife. The pulps scrape off easily and there is very little fibrosis. The kidneys—The right kidney is of a normal size and shape, purplish red in color. The capsule strips easily, leaving a glistening, slightly granular surface. The color of the surface is mottled yellow and pink. On incision the surface shows that the organ is not markedly fibrotic. The cortex was 1 cm in diameter and easily differentiated from the medulla. The blood vessels are congested and parenchyma swollen. The adrenals are not abnormal. The left kidney is slightly larger than normal and presents a picture similar to that of the right kidney just described. The internal genitalia shows that the tubes are markedly congested. Both ovaries are fibrotic. The uterus was of a normal size and shape for a nulliparous one. The mesenteric lymph nodes are slightly congested, but not enlarged. The heart—The organ is 15 cms long, 12 cms wide, and 5 cms thick. The outer surface is somewhat irreg-

ular and glistening. In a large extent it is covered by a layer of fat which is of a slight yellow color. Other areas can be seen where the musculature is in evidence. Through the fat on one surface runs the coronary vessel, while on the other surface they are not visible. The wall of both atria is about 4 mms thick. The right ventricular wall is $1\frac{1}{2}$ cms thick, while the left ventricular musculature is 2 cms thick. On incision and observation of the musculature, one finds that it is of a very light brownish red color and is not friable in consistency. The inner surface is smooth and glistening and in the ventricles, there are very definite papillary muscles from which are extending chorda tendoneae. On examination the valves show no evidence of sclerotic changes or of growth. The slight portion of the aorta which is present is 2 mms thick, but throughout shows no sclerotic changes.

Gross Anatomical Diagnosis: Toxic myocarditis; lobular pneumonia; edema of the lungs; pleurisy with effusion on the right side; abscess of the lung on the left side; dilation of the heart; fatty degeneration of the liver; acute toxic splenitis; acute toxic nephritis; some type of ulcerative dermatitis.

Microscopic Diagnosis: Heart—Toxic degeneration of muscle fibers.

Lung—Edema of lungs; peribronchial infiltration of lymphocytes, heart failure cells in air sacs; multiple abscesses, no neutrophiles in abscesses.

Liver—Albuminous and fatty degeneration, more marked centrally; beginning cirrhosis; perisplenic small lymphocytic infiltration.

Spleen—Slight fibrosis, moderate blood pigment with large phagocytes; no neutrophiles found.

Kidney—Acute toxic glomerulo-tubular nephritis; congestion of some of the blood vessels.

Culture from heart blood shows *Streptococcus hemolyticus*.

Case 2: Mrs. J., white female, aged fifty-four years. Admitted to Touro Infirmary in ambulance on May 8, 1928. Chief Complaint: Severe sore throat. Present Illness: About a week ago, patient became ill with sore throat and fever up to 103.2 degrees. Since then she has continued with sore throat and fever. No vomiting, but was nauseated and could not eat. Diarrhea. Past Illness: Patient has been in poor health for about two years, especially last six months. She has lost about thirty pounds. Does not feel like eating. Family History: Negative. Physical Examination: General: An emaciated, quite prostrated, very sick, middle-aged woman. Dehydrated. Ears, nose, eyes and mouth negative. The right tonsil was enlarged, fiery red. There was an area about 1 cm. square, which was greyish white, and when sponged and swabbed out revealed a cavity about

2 cm. deep. There was another small greyish area on soft palate, just to the right of uvula. Heart and lungs negative. Abdomen negative; spleen not palpable. Extremities negative. Clinical findings: May 8, 1928: Erythrocytes 4,100,000; leukocytes 520; no neutrophils on smear. On May 9, leukocytes 575; no neutrophils.

Case 2.

Date	WBCS	Polys per cent
May 9.....	575	0
May 10.....	380	0
May 11.....	920	Few
May 12.....	1,500	36
May 13.....	2,000	36
May 14.....	2,800	----
May 15.....	3,750	62
May 16.....	5,900	63
May 17.....	4,100	50

Daily counts from May 18-25 showed the white cells varying from 2,900 to 4,260 with the percentage of poly-morphonuclears ranging from 38-50.

The above chart shows the important features of daily blood count.

Special Examinations: Fusiform bacilli and spirilla found in large numbers in throat smear. Urinalysis: Negative.

Wassermann: Negative. Blood Culture: Negative. Diagnosis: Agranulocytic angina.

Having arrived at the above diagnosis, treatment to relieve the local condition was instituted, and blood transfusion was performed in which the patient received 500 c.c. of whole blood by the direct method on May 10, 1928. Two transfusions followed: On May 12, 1928—500 c.c. blood, and May 21, 1928—250 c.c. blood.

The following is the progress record in this case, which is of particular interest in that, if followed carefully, you will note the gradual improvement in the patient's condition to the point where she was discharged as apparently well on May 26, 1928.

Progress Record: May 8, 1928—Patient is admitted apparently quite weak and prostrated. She has a sore throat, red, and slough on right tonsil and on soft palate on right side. Temperature 102-103. Duration of symptoms, one week. Before that, weak and nervous for months, at least six months.

May 9, 1928—Patient's condition about the same. Nourishes fairly well. Temperature about the same. Vincent's organism found in smear in large numbers. Blood pressure 126/58. There was observed an erythematous macular eruption on right arm and on hip, which has spread over back, both hips and arms.

May 10, 1928—Pulse 120. Blood pressure 130/70. Heart sounds are fair, no murmur. Lungs, clear. Abdomen, no distention, no pain on pressure, looks pale, and the rash has decreased some. Anterior axillary palpable—no other glandular enlargements.

May 11, 1928—Pulse 110, radial; respiration fair volume. Heart sound fair. Blood pressure 120/70.

May 12, 1928—Pulse 100. Blood pressure 120/80. Heart sounds are fair. Lungs, clear. Has some pain in epigastrium and lower sternum, but nothing to account for the general condition of patient.

May 13, 1928—Pulse 100, regular. Blood pressure 120/70. Heart sounds, good. No murmur and friction rubs. No distention of abdomen. No pain on pressure. Patient feels better than yesterday, and on whole condition is most encouraging.

May 26, 1928—Patient has shown steady clinical improvement. Discharged, apparently well.

We heard from this patient from time to time during the following eighteen months. She remained well, in fact, during the first twelve months following this illness, the patient returned to New Orleans about every three months for a total leukocytic count, and each time it was within the normal range. This would indicate that we could consider the patient as cured.

SUMMARY.

In a review of the records of Charity Hospital, Touro Infirmary and Baptist Hospital, of New Orleans, eleven cases were found with a diagnosis of agranulocytic angina, two cases in 1927, two in 1928, one in 1929 and six in 1930. Two of the cases, or 18 per cent, occurred in negroes, and two of the patients were males. The average age was 36.8 years, the oldest being 70 years and the youngest 4 years. The average stay in the hospital was 17 days with extremes of one and 75 days. The patient who was hospitalized for 75 days was suffering from other medical conditions. There were ulcerated lesions in two of the cases. The following areas of ulceration were noted in some one of the nine other cases: Tonsils, pharynx, gums, oral mucosa, soft palate, epiglottis, uvula, arytenoid cartilage, base of tongue, labia and vagina. Smears of the

lesions showed the usual organisms found. One of the cases followed an acute alcoholism. The symptoms were not absolutely typical in all of the cases, but the blood pictures were characteristic of agranulocytosis. One case had a 100 per cent lymphocytic differential count.

DISCUSSION.

Dr. S. M. Blackshear (New Orleans): Agranulocytic angina, one of our more recent pathological arrivals, is a rare disease, which is fortunate on the one hand and unfortunate on the other, for we do not have the opportunity of concentrated study on a series of cases.

Our limited experience in treating this malady was favored with such satisfactory results in employing whole blood transfusion, that we feel that this is the most logical way of treating this disease. In my opinion, the blood dyscrasia is the most important phase of the disease, and therefore I feel that we should fight the disease through the blood stream.

The Vincent's angina ulcers in the throat may be treated locally, but whole blood transfusion is the only therapeutic agent that I believe any faith can be pinned on.

Dr. F. M. Johns (New Orleans): I have had the pleasure of making several examinations on the patient whom Dr. Brown has reported, and I can testify to the apparent cure. In size, number, shape and staining reaction the white cells are apparently normal and complete regeneration has apparently occurred.

This is a very interesting disease in which complete destruction of one class or type of body cell occurs. It appears to follow exactly the same process which occurs when certain chemicals such as benzol, are given which have a destructive effect on the leukocytes and myelocytes in the bone marrow. This precedes the angina, and apparently has no definite connection with the bacterial flora present in the throat.

There are cases on record in which we have an agranulocytosis without any angina. I followed one such patient last summer over a period of three months. He had a complete absence of neutrophils, eosinophils and basophils, but there was no history of a previous angina, and there was no such complication until death ensued. I prefer to look upon the angina as a secondary infection. The granulocytes we know play a most important part in fighting off any sort of disease process, and when they are absent there is no protection against infection. Certain areas of the body are at all times heavily charged with various sorts of bacteria, such as the oral cavity, the rectum, the vagina and similar structures.

Sooner or later infection is bound to occur and particularly when the natural defensive mechanism is lost. In such cases as this the best prophylaxis is the preservation of the integrity of the mucous membrane.

Two weeks ago I saw a patient with a terminal broncho-pneumonia in whom there was no evidence whatsoever of any granulocytes. She died within 28 hours with no evidence of angina, but the leukocytes went down to a total of 500.

If we are dealing with an agranulocytosis we must preserve the integrity of all mucous membranes, and use every possible measure to promote regeneration of the bone marrow. If there is any myeloid tissue left there is some possibility of regeneration if the patient lives long enough to allow such to take place.

Dr. M. P. Boebinger (New Orleans): I have seen several cases with a fatal issue in which I was able to identify the fusiform bacillus by slide examination. Culture is not satisfactory in this type of case because the report is too late in coming. There is no known media today which will grow Vincent's angina. A superficial smear may give negative results, but if you remove tissue by the curette or by forceps you will bring the organisms with it and your diagnosis is made without difficulty.

I might remark, as a matter of interest, that I recently saw a most unusual case in which the leukocyte count went up from a few thousand to 200,000 at the time of death.

As to the use of whole blood, I think that treatment is well combined with small doses of salvarsan. In treating Vincent's angina, I use the curette or forceps, as I have explained, to get my diagnosis, then use a solution of perborate or peroxide or something similar, followed with a 50 per cent solution of salvarsan. I see the patients 3 or 4 times a day for the application, and if results are not prompt, I employ another technique, the introduction of salvarsan into the vein or tissue by needle, which practically always gives results.

Dr. A. A. Landry (Plaquemine, La.): I recently found a report of a case by Dr. Stewart Roberts of Atlanta, which seemed to prove that the etiologic factor in these instances is a failure of the bone marrow element to produce granulocytic cells. Why it fails to produce this special blood cell, while it continues to produce other blood cells, we do not know. The throat symptoms are secondary to the systemic disease caused by the invasion of the organisms which is possible because a granulocytic defense is not available. Blood transfusion is the logical treatment in view of the etiology. It is suggested that roentgen ray treatment may stimulate the bone marrow to

resume its normal function, but this is not established. We cannot say that any special organism is responsible for the disease, for blood cultures have evidenced many known types. The crux of the whole matter is the endeavor to discover what is responsible for the break-down of the bone marrow to produce the granulocytes.

THE ETIOLOGY AND PROGNOSIS OF SINUSITIS.*

JOHN B. GOOCH, M. D.,

NEW ORLEANS.

In recent years, the spotlight of medical attention has been turned to the sinuses as foci of infection responsible for all kinds of constitutional disturbances, and with modern methods of diagnosis, notably the roentgen ray, we are discovering that a surprisingly large percentage of all patients have some form of sinus infection. In spite of the vast amount of work and research that has been done, there is yet much to be desired in the clearing up of chronic cases and so it would seem only logical to devote more of our time to their prevention.

There is probably no phase of medicine that it so misunderstood by both the profession and the laity. Most people, including some physicians, have the idea that sinusitis is essentially an incurable disease, almost comparable to cancer, requiring repeated operative procedures with very little, if any, hope for improvement. Patients with nasal symptoms are actually afraid to go to a rhinologist for fear he will pronounce their condition sinusitis, which in their mind, would be almost equivalent to condemning them to a state of semi-invalidism for life.

Hence it is the purpose of this paper to discuss in a general way the etiology of sinusitis, attempting to show how it might be prevented, and to give some idea as to its course and prognosis.

With the exception of those cases of dental origin, sinusitis always begins as a head

cold, and, conversely, every head cold has the potentiality of developing into a sinus infection.

The common head cold (coryza or acute rhinitis), is defined as an acute inflammation of the mucous membrane of the nose and, in most instances, there is some involvement as well of that lining the nasal accessory cavities. While no specific micro-organism has been isolated, it is fairly definitely settled that colds are due to a filtrable virus. However, the complications are due to secondary invasion by the bacteria flora normally found in the nose and to which healthy mucous membrane is an effective barrier; the *Micrococcus catarrhalis*, the influenza bacillus, *Bacillus mucosus capsularis* and the various types of staphylococci, streptococci and pneumococci. The contributory or exciting factors are well known though not sufficiently stressed: fatigue, exposure, dissipation, improper clothing, lack of exercise, improper ventilation, overheating; general physical conditions, malnutrition, vitamin deficiency, disturbances of the gastro-intestinal tract; and, notably local conditions as deflected septums, hypertrophied turbinates, diseased tonsils and adenoids.

The course of the common cold is so well known that I shall not describe it, but the question naturally arises, "How can we tell when a cold has developed into an acute sinusitis?" Head colds accompanied by unusually severe symptoms, nasal blockage and profuse discharge, that persist longer than from three to seven days, are complicated by a sinus infection. When headache, fever, a sensation of weight in the head and tenderness over the sinuses develop, these cavities not only are infected, but contain pus under pressure.

The sinuses are normally sterile cavities lined with ciliated columnar epithelium containing numerous mucous glands. In the event of an infection, these glands produce an enormous quantity of mucous and muco-purulent material. Since, with the exception of the frontal, the ostia of the sinuses are placed above the floor, this se-

* Read before Orleans Parish Medical Society June 8, 1931.

cretion can be expelled, when the patient is in the erect position, only by ciliary action. If these ostia are blocked by a deflection septum or by swelling of the nasal mucous membrane, the sinuses are unable to empty themselves. The longer the secretion remains in the sinuses and the more frequently acute attacks are repeated, the greater is the damage done to the highly specialized epithelium. A vicious circle is instituted and once the cilia are destroyed the normal defensive mechanism of the sinuses is lost and cannot be restored.

The prophylaxis of sinusitis therefore consists in the prophylaxis of head colds and in the early treatment of acute cases.

Patients who are unusually susceptible to colds should be examined by a rhinologist. If there is any sinus condition it should be given appropriate treatment, and the patient warned of the necessity of turning promptly in the event of an acute flare up. If the sinuses are clear, infection may be prevented by attention to local conditions, the removal of diseased tonsils and adenoids or the resection of a deflected septum. Contributory factors should be carefully checked over by the family physician, and everything possible done to reduce or eliminate them. This would include the building up of the debilitated patient, the administration of appropriate vitamins and hormones, advice as to exercise and the proper adjustment of heat, clothing and ventilation.

There is considerable discussion as to the value of vaccines; it is claimed that some patients are not benefited by their use; that if colds are due to a filtrable virus and vaccines are only for the secondary invaders, they can be of no value in the prevention of colds, but we should not lose sight of the fact that the distressing complications of colds are due to these very same secondary invaders. Even if vaccines have only a fraction of the 70 per cent effectiveness claimed for them, they can do little, if any harm, and they are of inestimable value to those cases that they do help.

Patients should be made to realize that the form of sinusitis of which they have heard so much as necessitating prolonged treatment and repeated operations is the result of neglecting early treatment. If the general practitioner would realize that acute sinusitis demands early treatment just as urgently as a case of acute gonorrheal urethritis, there would be a great deal fewer cases of chronic sinusitis. As in a Neisserian infection, as soon as the posterior urethra and the prostate become involved the prognosis is made infinitely worse, so in the case of an acute rhinitis once the infection has spread to, and becomes embedded in, the delicate mucous membranes of the sinuses it is much more difficult to eradicate. If any, the urologist has the advantage over the rhinologist, because he can at least massage the prostate and so express the products of infection, while the rhinologist must depend almost exclusively on ventilation and drainage.

I once heard a patient say that her child's tonsils and adenoids had been removed, but that the sinuses were only drained but not taken out. This idea is more generally shared than we realize and may account for the popular disappointment at the results of sinus surgery. The laity should be made to understand that the sinuses are not appendages, like the tonsils or the appendix, but rigid bony cavities which cannot be removed or obliterated. In general surgery the principle followed in dealing with an infected sinus is to remove all epithelial tissue and to allow it to heal by granulation from the bottom up. Unfortunately this principle cannot be followed in the nasal accessory sinuses.

No surgical procedures thus far devised can restore normal physiological function to a diseased sinus; intra-nasal openings have for their object the substitution of gravity drainage for drainage by ciliary action and radical operations the removal of all diseased epithelium with the hope that it will be replaced by normal tissue which, as we know only too well from ex-

perience, is seldom equal to the original healthy mucosa and is less resistant to infection.

Operations on the sinuses often have to be repeated, and naturally so, because the rhinologist strives to be as conservative as possible and to exhaust all simple measures when practical before resorting to radical operations. It must also be borne in mind that there are eight sinuses in all, four to a side, and in addition, the ethmoid alone is made up of from four to twenty separate, distinct cells. It is possible for one sinus to be infected and to be cleared up by treatment, or operation, and then later another group to become involved. No one complains of having to go back to a dentist to have some more work done within six months or a year after his first visit, yet we see a large number of patients trying to ascribe a sinus infection to some previous operative procedure, which might have been done on an entirely different group of sinuses.

In conclusion, any condition that is so generally prevalent, so resistant to treatment, and so crippling in its general constitutional effects as sinusitis demands our best efforts at prophylaxis. This can be done by considering every head cold as a potential sinusitis and by striving to prevent or lessen the severity and recurrence of head colds, and secondly, by urging patients to report for treatment in the acute stage so that the infection may be controlled before the histology of the highly specialized nasal mucous membrane has been permanently altered.

DISCUSSION.

Dr. J. R. Hume (New Orleans): Ten years ago, sinusitis was considered to depend in most instances for its treatment upon surgery. Our literature was largely devoted to surgical technic. We have not improved greatly upon the technic developed during this period. Following this, diagnosis, occupied the spotlight and with the improved technic of the radiologist and the more general use of the naso-pharyngoscope, we were informed with a reasonable degree of accuracy, the changes that had taken place in the sinus mucosa. More recently the major attention is being paid to its etiology, its prevention and its relation to general medicine.

At last our investigations seem to be saner and more likely to bring gratifying results. It has been determined that the sinus mucosa is very resistant to infection. What are the factors that lower resistance and prevent bacterial invasion? Is it faulty diet, an endocrine imbalance or an allergic manifestation? These are the questions that must be answered by the otolaryngologist with the help of his confreres in other lines.

There is no doubt that we otolaryngologists have had our faults in regard to sinus disease and are openly negligent in research and etiology. No doubt such men as Kistner, Dean, Carmody, Shurly and others who have worked on etiology and pathology in regard to bacteriology, in relation to general constitutional disturbances, and the relationship of allergic conditions brought out so ably by workers in Washington University, have shown that many factors have and are yet to be discovered in the etiology of sinusitis. We know allergic conditions operate in the etiology of sinus disease. We know that sinus disease aggravates allergic disturbances and vice versa. We know that in addition to many constitutional disturbances which make up the basis for our sinus infections in which we have been terribly negligent, there are endocrine and other factors which we must understand before the book of etiology will be completed. We know that constitutional disturbances as gastric disturbances, allergy, endocrine, vitamins, etc., are the fundamental factors and the physiological defects of the nose such as deviated septum, etc., are the predisposing causes of sinus disease.

We know that there are many other causes which the essayist has not talked about under general yet specific causes. We know that many of our bone pathology cases are tubercular or syphilitic sinusitis, even some are malignant.

Because of our lack of etiology in sinusitis, we resort to resection of the sputum and other measures of constructive surgery later on, radical surgery. By that time the patient is disgusted and consequently the general attitude is that, once operated, the patient must be reported ten or twelve times.

In conclusion, the one thing I would like to urge is that we devote as much research toward etiology as towards therapy. When we know etiology, therapy is a lot more simple.

Dr. John B. Gooch (closing): I had hoped that the men doing general practice would take part in the discussion for the paper was written especially for them. I have tried to stress the importance of the general practitioner paying more attention to the nose, as nose cases usually go to them first. Most cases of acute sinusitis clear up spontaneously, but it is that small percentage that does not and continues on to the subacute or chronic stage that causes so much trouble later.

NEW ORLEANS Medical and Surgical Journal

Established 1844

Published by the Louisiana State Medical Society under the jurisdiction of the following named Journal Committee:

Roy B. Harrison, M. D., *Ex-Officio*
For one year: John A. Lanford, M. D.
For two years: S. M. Blackshear, M. D.
H. W. Kostmayer, M. D., Chairman
For three years: W. H. Seemann, M. D.
Randolph Lyons, M. D., Secretary

EDITORIAL STAFF

John H. Musser, M. D., ... *Editor-in-Chief*
Leon S. Lippincott, M. D., ... *Editor*
Willard R. Wirth, M. D., ... *Editor*
H. Theodore Simon, M. D., ... *Associate Editor*
G. C. Anderson, M. D., ... *Associate Editor*
Jacob S. Ullman, M. D., ... *Associate Editor*
D. W. Jones, M. D., ... *Associate Editor*

COLLABORATORS—COUNCILORS

<i>For Louisiana</i>	<i>For Mississippi</i>
H. E. Bernadas, M. D.	J. W. Lucas, M. D.
Daniel L. Silverman, M.D.	L. L. Minor, M. D.
C. C. DeGravelles, M. D.	M. W. Robertson, M. D.
W. H. Browning, M. D.	Thomas J. Brown, M. D.
J. B. Vaughan, M. D.	Willie H. Watson, M. D.
J. H. Slaughter, M. D.	H. Lowry Rush, M. D.
D. C. Iles, M. D.	Jos. E. Green, M. D.
J. H. Landrum, M. D.	W. H. Frizell, M. D.
	D. J. Williams, M. D.

Paul T. Talbot, M. D., ... *General Manager*
1430 Tulane Avenue

SUBSCRIPTION TERMS: \$3.00 per year in advance, postage paid, for the United States; \$3.50 per year for all foreign countries belonging to the Postal Union.

News material for publication should be received not later than the twentieth of the month preceding publication. Orders for reprints must be sent in duplicate when returning galley proof.

THE JOURNAL does not hold itself responsible for statements made by any contributor.

Manuscripts should be addressed to the Editor, 1430 Tulane Avenue, New Orleans, La.

THE NEW OFFICERS OF THE LOUISIANA STATE MEDICAL SOCIETY.

The recent business meeting of the Louisiana State Medical Society was completed by the installation of Dr. Roy B. Harrison as President for the coming year. Dr. Harrison needs no introduction to the physicians of Louisiana. His wide acquaintance, his knowledge of economic and scientific medicine and his known gifts as an executive, give to him certain attributes which undoubtedly will make Dr. Harrison one of the most successful presidents the State Medical Society has ever had. To Dr. Har-

rison the Journal extends felicitations and congratulations.

The new officers that were elected to the organization were first the President-Elect, Dr. C. A. Weiss of Baton Rouge. Dr. Weiss has been a practitioner of medicine in the State of Louisiana ever since his graduation from Tulane University of Louisiana in 1900. Shortly after starting practice he decided to specialize in diseases of the eye, ear, nose and throat, and it is as a specialist in this branch of medicine that Dr. Weiss has obtained his greatest reputation. He has been an active contributor to the Section on Eye, Ear, Nose and Throat, and in 1924 was honored with the appointment as Chairman of this particular Section. His reputation throughout the State as an ophthalmologist and otolaryngologist, and as a leader in organized medicine is a distinguished one. In the latter capacity he has been a delegate to the State Society for a number of years; he has been Chairman of the Committee on the Care of the Indigent Physician since 1922; Chairman of the Committee on Arrangements for the 1928 Annual Meeting in Baton Rouge; from 1925 to 1928 Dr. Weiss was Councilor of the Sixth District; he has been as well both Second and First Vice-President of the State Society, and this year and the approaching year will be Chairman of the Committee on Public Policy and Legislation. Dr. Weiss well merits the honor that has been bestowed upon him. He has been an unselfish laborer and worker for the ideals and high purposes of the Medical Society.

Dr. J. T. Nix of New Orleans was elected First Vice-President. Dr. Nix is one of the best known surgeons in New Orleans. He has recently been made one of the Professors of Surgery in the New Louisiana State Medical School, an index of the respect with which he is held in his home city.

For the position of Second Vice-President Dr. C. M. Horton of Franklin was honored. Dr. Horton has been active for many years in the State Medical Society,

and is a practitioner who has obtained a splendid reputation in his community.

For Third Vice-President Dr. W. P. Butler of Shreveport was elected by the House of Delegates. For some years Dr. Butler has been a delegate in the House and he has been active as well in the medical affairs of the Shreveport Medical Society.

Every member of the State Medical Society is acquainted with the genial, capable, and efficient re-elected Secretary-Treasurer, Dr. P. T. Talbot, who has held office now for some fourteen years. It is our hope that Dr. Talbot will hold this office for at least fourteen years more.

The Councilors of the First and Second Districts, Dr. H. E. Bernadas and Dr. D. N. Silverman of New Orleans, were re-elected. Their re-election is indicative of the high esteem with which they are held in their districts. The Councilor of the Fourth District, Dr. W. H. Browning of Shreveport, is a very recent graduate of the Tulane Medical School. He has, by his good common sense, and his knowledge of medicine, obtained a standing which is unusual for one so recently graduated. Dr. J. B. Vaughan of Monroe was elected as the Councilor of the Fifth District. Dr. Vaughan is well known to the doctors of the State to whom it will be obvious why he was elected to this position of honor and responsibility.

Dr. J. J. Ayo of Raceland has made such a splendid record as a just and impartial parliamentarian that there is no one in the State likely to succeed him as long as he wishes to hold the position as Speaker of the House of Delegates.

The list of Committees that were elected will appear in the report of the House of Delegates of the State Medical Society.

THE MISSISSIPPI STATE MEDICAL ASSOCIATION OFFICERS.

To the new officers of the Mississippi State Medical Association the New Orleans Medical and Surgical Journal extends warm greetings and congratulations for the honor that has been bestowed upon them by their

fellow members in the Mississippi State Medical Association.

Dr. J. M. Acker, the new President, is one of the enthusiastic and active practitioners in the State. Dr. Acker is a splendid selection for the office of President and will make a worthy successor of the distinguished Dr. John C. Cully.

As President-Elect Dr. John W. D. Dicks of Natchez was elected by the organization. Dr. Dicks is one of the most charming and most delightful medical men in his State. He has obtained an enviable reputation as a surgeon of merit and skill.

The Journal also wishes to extend its congratulations to the new Vice-Presidents Dr. B. S. Guyton of Oxford; Dr. J. S. Hickman of Philadelphia; and Dr. Riley Burnett, of Biloxi. To the other officers as well, some of whom have held office for some years, others who are new, we also proffer our congratulatory compliments.

AMEBIASIS IN THE SOUTHERN STATES.

Infections with *Endameba histolytica* may conservatively be said to be present in from 10 to 20 per cent of the population of the Southern states of this country. Faust¹ found that in the New Orleans clinic population about 13.7 per cent were infected, and that in Charity Hospital at New Orleans 27.2 per cent infection was present in patients in male medical wards, 13.1 per cent in female medical wards, 25.2 per cent in patients of the obstetrics service, 8.27 per cent in medical students, and 9.05 per cent in private, pay patients. Indeed, not a few workers are inclined to feel that such infections constitute as definite a medical problem as hookworm disease in the South.

Several observers emphasize the fact that actual dysentery with blood and mucus in the stools occurs in only a small number of the cases harboring this protozoan parasite. They argue for a more general recognition of the existence of other pathologic states than dysentery as produced by this parasite, and point out that there may be produced amebic dysentery, subacute and

chronic amebic enteritis, amebic abscess of the liver, amebic hepatitis and amebic carrier state. Craig² concludes that "*Endameba histolytica* is essentially a tissue parasite and that there can be no infection with this parasite without the production of pathologic lesions, however minute such lesions may be."

Craig³ has described a definite symptom-complex as found in persons with chronic or carrier states of the disease, which states are recognized conclusively by the demonstration of the cyst stage of the parasite in the feces. The symptoms are connected with the gastro-intestinal and nervous systems and include chronic constipation with intervals of more or less severe diarrhea, capricious appetite, periods of anorexia, flatulence and distention of the abdomen, and dull aching sensations in the lower part of the abdomen. There are also often present neuralgic pains in the head and extremities, dullness and lack of interest in the daily work, and nervous irritability.

Identification of this parasite, particularly the encysted stage, requires a competent and experienced observer. Personal communications from laboratory workers engaged in routine examination of the feces—a procedure which many physicians are coming to regard as of equal importance

with routine examination of the blood and urine—would make it appear that an unusual number of patients with acute amebic dysentery are presenting themselves for diagnosis and treatment in the spring months of 1932.

Conjecture as to the underlying cause for increasing incidence of such cases would assume that the present period of depression through which our people are passing has impelled such modifications of the usual diet of at least a portion of our Southern population as to lead to increased opportunities for infection and to decreased resistance on the part of the individuals subjected to infection with a consequent increase in the number of such cases. Certainly the problem of amebiasis is a very real and present one. The diagnosis and thorough treatment of such cases by physicians is important in preventing the further dissemination of the disease and assuring the health of the public in the South.

1. Faust, E. C.: The incidence and significance of infestation with *Endameoba histolytica* in New Orleans and the American tropics, *Am. J. Trop. Med.*, 11 :231, 1931.
2. Craig, C. F.: The amebiasis problem, *J. A. M. A.*, 98: 1615, 1932.
3. Craig, C. F.: Symptomatology, diagnosis, and treatment of carriers of *Endameba histolytica*, *J. A. M. A.*, 90: 1345, 1928.

HOSPITAL STAFF TRANSACTIONS

SURGICAL STAFF OF CHARITY HOSPITAL.

The Surgical Staff of Charity Hospital held its regular monthly meeting on May 18, at 8:00 p. m., in the Nurses' Auditorium. There were forty members present. Dr. I. M. Gage, Chairman, presided. The minutes of the previous meeting were read and approved. There was nothing to be considered under the heads of reports of committees, new, old, or unfinished business, so the meeting passed to the scientific session.

Dr. Arthur King reported a very interesting case of a colored female, aged 19 years, para three, who was admitted at term showing hemiplegia. Syphilis and arteriosclerosis were ruled out. She had had no hypertension or albuminuria and no prodromata of eclampsia until this sudden onset. She passed into coma and a living child was delivered by caesarean section. The

mother died and autopsy showed the cerebral hemorrhage and pathological changes in kidneys and liver identical with eclampsia. This case is described as "eclampsia without convulsions" on the authority of Williams, and takes its place with forty-three others described in the literature, eight of which terminated in cerebral apoplexy. The case will be reported in detail elsewhere. Pathology of eclampsia was discussed by Dr. Von Haam. Dr. C. Jeff Miller discussed the case from the standpoint of pathology and treatment and sounded a warning against early operation in eclampsia in general; also suggested therapeutic bleeding by venesection.

Dr. John H. Connell from the Department of Pathology then gave a report of the work done during the past year on tissue removed at operation and submitted for examination and diagnosis. The summary follows:

Gynecologic: uterine fibrosis 318; uterine fibroids 522; placenta 1; uterine carcinoma 7; uterine scrapings 396; tubes 896; ovary 847; cervix 315; vagina 9; labia 21; total 3,342. Oral: mandible 5; maxilla 6; total 10. Neuro: brain tumors 3; nerve tumors 1; total 4. Neck: thyroid 72; post bronchial struma 1; salivary gland 5; total 78. Orthopedic: amputations 66; bone scrapings 10; total 76. Biopsy diagnosis: skin 82; lymph glands 94; lip 4; sacrum 11; subcutaneous 28; total 219. Abdominal: appendix 3,764; gall-bladder 172; stomach 19; pancreas 3; spleen 3; intestines 17; rectum 56; mesenteric cysts 1; omentum 8; liver 1; total 4,046. Breast: inflammation 9; tumors 127; total 136. Genito-urinary: kidney 33; bladder 3; prostate 74; testes 17; penis 32; total 159. Ear-nose-throat: antrum 2; nose 2; eye 4; epiglottis 1; larynx 3; vocal cords 1; lungs 1; esophagus 1; tonsils 2,405; total 2,420. Total number of neoplasms: 312. Cervix 25 per cent; breast 19 per cent; penis 7 per cent; skin 6 per cent; rectum 5 per cent; stomach 3.9 per cent.

This, of course, proved of much interest to the Staff, and indicated the extent to which the Department of Pathology is cooperating with the Surgical Staff. Dr. Connell then discussed classification of carcinoma of the breasts saying "The old problem of classification of neoplasms being only of interest to the pathologist has become obsolete. Due to the advancement of the knowledge concerning neoplasms in general, their morphology and their biological activities, it is essential that the surgeon and clinician become better acquainted with it. The old classification of carcinoma of the breast was based on an anatomical arrangement of the cells, such as: adenoma, schirous, simplex, medullary carcinoma, etc.; it must be supplanted by terms of use to the clinician. The pathologist should endeavor to give information as to the characteristics and activities of the neoplastic cells and grade them according to the degree of malignancy, thereby determining the further course of the tumor and prognosis of the patient. The advancing knowledge of radium sensitivity in direct proportion to the de-differentiation of the cells, makes such a classification extremely important especially in treating that grade of highly malignant tumor." The discussion was amplified by gross specimens and microscopic sections.

This being the last meeting of the spring session the Staff adjourned until October, when the first meeting will be devoted to the election of officers.

STAFF MEETING OF THE KING'S DAUGHTER'S HOSPITAL, GREENVILLE, MISSISSIPPI.

The regular monthly meeting of the staff of the King's Daughters' Hospital at Greenville, Mis-

issippi, was held on May 4, 1932, in the dining room of the hospital, where a good dinner was enjoyed by those present.

It was Leflore County night, and the following visitors were present from Leflore County: Drs. Dickens, Kennedy and Baskerville, all of Greenwood.

The following members of the staff were present: Drs. John Lucas, B. Lewis, J. A. Beals, H. A. Gamble, John W. Shackleford, F. M. Acree, P. G. Gamble, O. H. Beck, C. P. Thompson, L. C. Davis, R. D. Dickens, R. E. Wilson, John Archer, A. G. Payne, J. C. Payne, J. B. Hirsch and George Eubanks.

After partaking of a delightful dinner, routine business matters of the hospital were taken up and disposed of. During this time attention was called to the fact that our attendance since the first of January has been well above 90 per cent, and at the present meeting all case histories have been properly written and filed. This is a record we are proud of, and it manifests a keen interest in the hospital and its workings.

A case report was given on "Syphilitic Osteitis of the Skull" by Dr. F. M. Acree, and a case report on "Syphilitic Gumma of the Dura" was given by Dr. O. H. Beck, after which these two case reports were opened for general discussion and were discussed at length by Drs. T. B. Lewis, J. A. Beals, H. A. Gamble, C. P. Thompson, A. G. Payne, and John Archer, and also by Drs. Baskerville and Dickens of Greenwood. The discussion was closed by Drs. Acree and Beck.

The officers of the Staff are:

President, Dr. John Archer.

Vice-President, Dr. J. B. Hirsch.

Secretary, Dr. R. E. Wilson.

Chairman of the Section on Medicine—Dr. T. B. Lewis.

Chairman of the Section of Surgery—Dr. Paul Gamble.

Chairman of the Section on Specialties—Dr. D. C. Montgomery.

Abstract—Syphilis Osteitis of the Skull.—Dr. F. M. Acree.

Patient—Colored male, aged 35 years. Chief Complaint—Sore on head. Past History—Usual childhood diseases; pneumonia at the age of 30 years; smallpox at the age of 23 years; lost last phalanx of right index finger at the age of 25 years; operations none; sore on penis at the age of 17 years; gonorrhea five times, the last time last year. Family History—Father dead, cause unknown; mother living and well, one brother living and well; no brothers dead; four sisters living and well; two sisters dead, cause unknown; married; no children; no miscarriages. Present Illness—In 1922 had sore in nose, which continued until September, 1929, when there appeared a swelling in mid-line of forehead just

above nose. This continued to swell for three days when he saw a doctor, who opened and drained it. Dressings were applied for three months but the drainage continued. He was given three shots of 606 during this time. Since then it has continued to drain. Physical Examination—Negro male; well developed and nourished; walked in. Head: Swelling on forehead; one open sinus in mid-line just over nose and one opening four c m. above; discharge foul smelling; bridge of nose sunken; septum eroded away; foul odor to discharge somewhat similar to discharge from sinus above. Eyes—Negative; Throat—Negative and congested; Lungs—No dullness on percussion; no rales heard. Heart—Not enlarged; no murmurs; no irregularities.

Abdomen—No masses nor tenderness; Extremities—Negative; Genitals—Negative; Skin—Normal. Laboratory Analysis: Blood count—Hemoglobin 55 per cent; red cells 3,070,000; white cells, 6,900; small lymphocytes, 7 per cent; eosinophils 5 per cent. Blood Wassermann—3-plus. Urine—Cloudy, foul odor; yellow color; alkaline reaction; specific gravity—1.012; albumin—negative; blood cells—negative, sugar—negative; six to eight pus cells to high power field; indican heavy; occasional waxy cast; many epithelial cells. Treatment—Intensive routine antisyphilitic, including neosalvarsan, bismuth, mercury and the iodides. Later, if necessary, the operative removal of bony sequestrae. Prognosis—Guarded.

Abstract: Case Report, Dr. O. H. Beck.

I am reporting this case tonight because of two reasons. First, I made a blunder in my diagnosis thinking I was dealing with a lipoma, the reason being that I did not take a careful history. Second, the common error that we all make in the haste in which we make diagnosis. I fulfilled the old dictum of operating and then making a diagnosis.

Patient—Negro male, 29 years of age came to the clinic March 28, 1932. He complained of a cystic tumor which was situated at the junction of the right parietal and frontal bones which gave him the characteristic look of a "Happy Hooligan." The tumor mass was noticed about three months ago. Since then it had grown rather rapidly and had attained the size of an orange. The patient has suffered with headaches, chronic in type, which were relieved about the time of the appearance of the tumor. General malaise and nervousness had been a persistent symptom for the past six months. His headaches at first were nocturnal in type; later persisted throughout the day. He had lost some weight, had a good appetite, slept rather poorly, complaining of dreams that were of the grandiose type, has had loss of memory and power of concentration more marked the last few weeks. Past History—Usual diseases of childhood, syphilitic ulcer in the

year 1925; malaria, 1928; denies infection of gonorrhea. Physical Examination—Negro male, 29 years of age, whose appearance was rather dull and his activities listless. His eyes reacted to light and accommodation, a sign that I thought would sure be positive. The nose showed a chronic deviated septum. The posterior pharyngeal lymphoid tissue was greatly thickened, the tonsils were infected and hypertrophied. There was a tumor about the size of an orange that arose just outside the hair border at the junction of the right frontal and parietal bones. The tumor mass was of a consistency of a cyst and showed no signs of being adherent below. The skin moved freely over it. There seemed to be a thickening and swelling of the skin around the base of the tumor. There was no pulsation of the tumor. The expansion of both chests was full and equal. No rales were present. The blood pressure was 115/60; temperature 98.4° F.; pulse 84; differential count, polymorphonuclears, 68; large mononuclears, 10; small lymphocytes, 22. The apex beat of heart was in the fifth interspace. There were no arrhythmias or murmurs present. The abdomen was of normal contour, the liver and the spleen were not palpable. The extremities were negative except for hyperactive knee jerks. There was a generalized glandular adenopathy, inguinal, cervical and epitrochlear. The Wassermann was three-plus in both antigens. Roentgenogram revealed an exostosis of the inner table of the cranium with an opening about the size of a half dollars at the junction of the right parietal bones. The bone was thought to be definitely syphilitic. At the time this patient entered my office I was busy, and on superficial inspection without much more history than the usual questioning in cystic tumors of the skin I at once had the nurse to make preparations to remove the tumor. After the skin was incised and the tumor dissected to its base I knew that I was dealing with either a syphilitic or a malignant tumor that arose from the dura and felt sure that the tumor had eaten its way through the bone by pressure. The tumor was dissected from off the dura and a section was sent to the pathological laboratory, where syphilitic gumma was beautifully demonstrated. I am quite certain that if I had taken a careful history and made a careful physical examination that, I would not had so much trouble in removing the tumor, for I am quite sure that anti-syphilitic treatment would have removed it for me. I am interested in knowing how to cure these individuals that have associated with their cerebrospinal syphilis, syphilitic osteitis of the skull. The discharging sinuses are very annoying and unpleasant to deal with.

F. M. Acree, Secretary.

MISSISSIPPI STATE BAPTIST HOSPITAL, JACKSON, MISSISSIPPI

The Staff of the Mississippi State Baptist Hospital met in regular monthly session in the dining room of the hospital on the evening of May 3, with 25 members enjoying the wonderful chicken dinner served to them.

Immediately after the dinner Dr. Garrison called the meeting to order and read the minutes of the previous meeting which were approved as read. Mr. Alliston made, as Superintendent, some very important remarks about the recent inspection by the American College of Surgeons representative, who found all the charts up and in order and as well be found a very complete record of the meetings of the staff. He also reported a very interesting bit of data in that all the rooms of the hospital were occupied, though the porches and wards were empty.

Case report by Dr. Robin Harris:

White female of undertermined age, who had previously had all of her teeth removed as well as her tonsils and who was having very severe pain and swelling in the right ankle joint. On examination she was found to have an antrum which was discharging cheesy pus and which was very cloudy by roentgen ray examination. A diagnosis of empyema of the antrum was made and the antrum was punctured and washed out well a number of times and on the tenth day after the institution of the treatment she was discharged as well and free from all symptoms and signs of her previous trouble with her ankle.

Case Report by Dr. Diamond—A colored female, aged 23 years, who came to the hospital complaining of pain in the lower part of her abdomen and pelvis and who had not menstruated for eight months. It was discovered in eliciting a history that she had had very painful menses with some increase in the vaginal discharge before the menses started, then that it ceased. She had been suffering with nausea and vomiting and constipation throughout the course of the past eight months. She had some bleeding and pain from the region of the rectum. Coitus had been most painful, especially during the past month.

Physical Examination revealed a normal looking colored female who seemed to have a very large abdomen. She showed the usual signs of pregnancy but otherwise was negative on physical examination, except by vaginal examination. In doing a bimanual examination there was elicited a great deal of pain and there was encountered a mass in the right side of the pelvis which would not allow the finger to pass by same and which did not seem to be attached to the gravid uterus. A roentgenogram was made and a large calcified mass was seen on the right side of the pelvis which seemed not to be attached to the ileum at any portion. The child in utero was seen and

showed no attachment to the mass. Diagnosis: Osteoma of the right ovary. Operative Procedure: A laparotomy was done and the child delivered by caesarean section was normal in every way. The uterus was closed and then this mass was found in the region of the right ovary and attached to same by pedicle. This mass was stony hard in texture and was removed, being about the size of a large grape-fruit. The mother and child made an uneventful recovery. The specimen was passed and observed. No microscopic section report was available at this time.

This case was discussed by Dr. Shands who reported a similar case encountered at operation for eclampsia in which a caesarian section was done. Dr. Frank Hagaman also discussed this case mentioning some similar cases but not osteoma of the ovary.

Dr. F. E. Rhefeldt discussed a very interesting case of death from generalized arteriosclerosis and hypertension, with multiple spontaneous hemorrhages over a long period of time.

Dr. Garrison called the staff's attention to the fact that this staff is not a medical society and that the matters of the hospital should be brought up as well as the cases of interest and be freely discussed by all.

Mr. Palmerlee, in charge of laboratories, urged that the members of the staff seek to obtain more autopsies because of their educational value, as well as offering a more complete record of the deceased cases.

The meeting was adjourned until 6:30 p. m., June 7.

Lawrence W. Long, Secretary.

VICKSBURG SANITARIUM AND CRAWFORD STREET HOSPITAL, VICKSBURG, MISS.

The regular monthly meeting of the staff of the Vicksburg Sanitarium and Crawford Street Hospital was held on May 16, with ten members and two visitors present. Dr. G. M. Street, President, presided. After a business meeting and reports from the records department and analysis of the work of the hospital, the following special case reports were presented:

General Carcinomatosis of the Peritoneum—Dr. G. M. Street.

Fracture of the Shaft of the Humerous with Non-Union; Intramedullary Autogenous Bone Transplant.—Dr. A. Street.

Congenital Syphilis (Two Cases).—Dr. G. C. Jarratt.

Abstract: Patient.—Colored female, aged 7 weeks, first seen April 4, 1932. Chief Complaint, crying; cannot use arms or legs; sore mouth; cold; pain on moving. Present Illness.—Mother stated infant had seemed to progress fairly well up to ten days previously, except had had a "cold" since birth. Ten days previous

mother noted child cried as if in pain when being dressed; three days later noted did not raise arms and use them as before, also began to hold knees flexed on abdomen and legs flexed on thighs. Had not noted any glandular enlargement. Sores appeared about mouth and lips about ten days previous and had cried night and day since that time. No fever before or since onset of symptoms. Mother had had Wassermann test during pregnancy; reported negative. Past History.—No illnesses except present. Birth: Normal cephalic delivery without instruments; no cyanosis or convulsions; nursed well. Feeding: Nursed from breast for three weeks and then put on condensed milk, 1 teaspoonful to 4-oz. water and given when child cried, with no regularity. Family History.—Mother living and apparently well; one miscarriage at 4 months between first and second normal births. Father living and in good health. Five other children living and well; none dead. No tuberculosis contact. Physical Examination.—Weight 9 lbs; fairly well developed but poorly nourished; arms lying at sides; legs flexed upon thighs and thighs flexed upon abdomen; cries when disturbed. Pupils equal but fixed; nasal cavities filled with bloody exudate, fissures around orifices, septum ulcerated; fissures around mouth, bleed easily; ulcers on soft and hard palates, bleed easily. Liver, fingers breadth below costal margin; small umbilical hernia. Ulcerations between labia. Fissures about anus. Inguinal and femoral glands enlarged. Grating and crepitation at elbows, knees, and ankles, also at shoulders; apparently very painful as cried out upon manipulation. Marked swelling of epiphyseal areas of lower and upper tibial, fibular, ulnar and radial regions. Moved fingers but when arms were raised, cried with pain. Wassermann, Kahn, and Kline and Young tests on mother and infant positive (4-plus). Roentgen ray examination of long bones showed extensive epiphysitis and osteo-chondritis of femur, tibia, fibula, ulna, radius and humerus of both sides. Course and Treatment.—April 4: Gave 0.05 gm. sulpharsphenamine intramuscularly; yellow oxide of mercury ointment in nose daily; inunctions of mercurial ointment daily; formula of one-half oz. condensed milk in 3½ oz. water to be given at 6, 9, 12, 3, 6, 10, and 2 o'clock; cod liver oil twice a day; syrup of ferrous iodide three times daily.

April 6—Gave 0.05 gm. sulpharsphenamine intramuscularly. April 10: 0.05 gm. sulpharsphenamine intramuscularly. Mother reported child sleeping much better and using arms and legs and does not cry with pain upon moving; snuffles improved. Can extend legs with no pain but swelling and crepitation of joints still present. Mouth and anus healing; ulcers of palate healing.

April 14:—Gave 0.05 gm. sulpharsphenamine.

April 21:—Weighed 9½ pounds. 0.05 grams sulpharsphenamine, strapped umbilical hernia. Moves arms and legs with no pain but still evidence of epiphyseal enlargement. Fissures healing; snuffles less.

April 28:—0.05 gram sulpharsphenamine. Advised use of mercury by inunction twice weekly only. Continued syrup of ferrous iodide. Put on formula of cow's milk, 10 oz., water 8½ oz., Karo two teaspoons, to be given 3½ oz. at 6, 9, 12, 3, 6, 10, and 2 o'clock.

May 5:—0.05 gram sulpharsphenamine. Roentgenogram of bones revealed healing. Taking formula; sleeps well; having one to two normal stools daily. Fissures healed; snuffles cleared; can use arms as normal infant; epiphyseal enlargement still present at ankles, wrists, and knees, and beginning sabre shin formation.

May 12: 0.05 gram sulpharsphenamine. Restrained hernia. No bulging of hernia except when strap removed.

Future Course of Treatment—Infant has had eight doses of 0.05 gram sulpharsphenamine. Will give mercury succinimid, gr. 1/70, intramuscularly for ten doses; then repeat eight doses of 0.05 gm. sulpharsphenamine and again ten doses of mercury and then ten doses of bismuth, the dosage according to age. Will then repeat Wassermann and if negative will treat for one year and repeat Wassermann on blood and do spinal fluid Wassermann at six months intervals, the treatment to depend on result of tests.

Patient.—Colored female, aged 7 weeks, first seen April 23, 1932. Chief Complaint—Cold: breaking out on body; fretful. Present Illness.—Mother stated child had had a cold with running nose since birth. One week ago noticed eruption on buttocks and later on abdomen. During previous week infant had rested very little either at night or during days. Past History—No illness except present one.—Birth History.—Normal cephalic delivery without instruments at nine months; no cyanosis or convulsions; cried huskily and nursed well from start. Family History.—Mother treated in this clinic four years ago for syphilis at which time Wassermann test was four-plus. Mother living and well. No miscarriages. One other child 13 years old, living and well. No children dead; no tuberculosis contact. Physical examination.—Weight 7¼ pounds; small, but well developed and fairly well nourished infant, fretful and crying. Mucoid discharge from nose, excoriations in nares and also at orifices; no ulceration of septum. There was opacity of lens of right eye and also small areas, size of pinhead to medial side of pupil in iris. Pupils distorted and fixed in left eye and did not react to light. Fissures on lip. Lymph glands of

neck small and shotty, freely movable. Small umbilical hernia. Excoriations about labia. Anus showed fissures. Generalized enlargement of lymph nodes, small, shotty, freely movable under the skin. Skin shows maculo-papular and pustular eruption over buttocks, back, abdomen and thighs. Wassermann, Kahn, and Kline and Young tests positive (4-plus) on infant; negative on mother. Roentgen ray examination of long bones shows early epiphysitis and osteitis.

Course and Treatment.—April 23:—Instructed to instill 0.05 per cent atropin sulphate solution in each eye daily; instill 2 per cent yellow oxide of mercury ointment in nares daily; inunctions of mercurial ointment daily; syrup of ferrous iodide, 10 minims three times a day. Breast feedings at 6, 9, 12, 3, 6, 10, and 2 o'clock.

April 23.—0.05 gram sulpharsphenamine intramuscularly. Pupils dilated; left very irregular.

April 28.—0.05 gram sulpharsphenamine. Opaque areas in iris gone and opacity of lens about one-half original size. Snuffles less and rash disappearing.

May 1.—0.05 gram sulpharsphenamine; instructed to use inunctions twice weekly. Rash gone and at site of same there is a yellow brown pigmentation. Snuffles less and fissures healed. Sleeps well and nurses well two or three normal stools daily. Gave mother 0.03 gram neosalvarsan for provocative test.

May 5.—0.05 gram sulpharsphenamine. May 8.—0.05 gram sulpharsphenamine. Wassermann on mother negative; Kahn and Kline and Young tests positive (2-plus).

There are a few fine yellow granules in left eye, apparently on lens but not in iris. Rash, fissures and snuffles gone.

May 14.—0.05 gram sulpharsphenamine. No snuffles, rash or fissures. No epiphyseal enlargement. There are no granules in iris or lens but pupils dilated and very irregular. Stopped atropin in eye and yellow oxide of mercury in nose. Wassermann on mother again taken and reported, Wassermann, (4-plus); Kahn (4-plus); Kline Young (4-plus).

Future Treatment.—Will be similar to Case 1.

The following radiographic studies were presented and discussed:

Fracture of the humerus with delayed union; fracture of the femur with delayed union; osteoarthritis of the knee; gunshot fractures of both arms; tumor of the skull, benign; syphilis of long bones; thorax for diagnosis; maxillary-sphenoid-ethmoid sinusitis; stomach; end result of partial gastrectomy for carcinoma; fetus, breech presentation.

Reports of the recent meeting of the American Medical Association at New Orleans were

presented by Drs. L. J. Clark and W. E. Johnston.

The report of the recent meeting of the American Society of Clinical Pathologists at New Orleans was presented by Dr. L. S. Lippincott.

The meeting closed with a lunch.

The next meeting of the staff will be held Friday, June 10.

Leon S. Lippincott, Secretary.

HOTEL DIEU STAFF MEETING.

The monthly meeting of the Hotel Dieu Staff was held on April 18, 1932 at 8 P. M.

Dr. Homer Dupuy presented a case of cerebral abscess cured. He stated the operative mortality is still 75 per cent. The patient came to him with a mastoid abscess on the right side, and high temperature. Mastoidectomy was performed. Intense right hemiparesis continued. A week later craniotomy was done, revealing an extra-dural abscess with pus between the brain and the temporal bone. The dura was exposed and the wound left open. This operation gave immediate relief as to pain; however, there was still evidence of pus in the wound. Three weeks later, the head being tilted to the right, an enormous amount of pus was found in the brain itself—the temporal-sphenoidal lobe. The fistula giving exit to the pus was enlarged and quantities of pus evacuated.

The cure was possible because of the encapsulation of the abscess. There had been no localizing symptoms, nor other usual brain symptoms. After finding the cavity, a rubber catheter No. 1 was left in for drainage. This tube has been removed, and the brain abscess cavity seems dry.

Drs. Jules Dupuy and Louis Levy were associated in this case; the latter did a blood transfusion which helped the patient through the stormy post-operative period.

Dr. Louis Levy presented a case of double cystic malignant ovary, moribund on admission one year ago. Laparotomy revealed a bleeding, ruptured, malignant right ovary. The field was cleared and the ovary removed. There was considerable hemorrhage; transfusion was done. Deep therapy was given on the right side. The sinus drained for many weeks. Then a left side mass was noted. A partial left oophorectomy was done. In the interval the patient was given colloidal gold and is now getting it three times a day. She is in fairly good condition, having gained eighteen pounds within four months.

Dr. Maurice Couret stated he believes that some good always results from colloidal injections (gold, lead, copper, etc.) in all cases of malignancy, particularly sarcoma, but the good results are only passive. However, he stated that one colloid does not seem to do the work, and he is fearful of a recurrence in this case. He advised trying each metal in turn as fast as the full therapeutic reaction was obtained from the preceding one.

Dr. Jerome E. Landry declared that in the majority of cases, after the use of colloidal gold, patients regain their health for a while, but they all die within a short time.

Dr. Levy, in closing, said that he does not expect a cure in this case, but is doing all that he can to help.

Dr. Theodore J. Dimitry presented an eye case of retinitis pigmentosa with an incidental hemorrhagic iridocyclitis. There was a definite mass in the vitreous that had all the possibilities of malignancy known as neuro-epithelioma or glioma of the retina; this left eye was to be enucleated the following day. The right eye was also diseased with retinitis pigmentosa. There was a definite relationship between this condition and the fact that the child was deaf and dumb. He is an inmate of Chinchuba Institute.

Dr. Dimitry also demonstrated the electric eye magnet; he explained that it is, of course, necessary to make an incision when using this magnet. The new instrument must be closer to the foreign body than the old-fashioned Haab magnet, but its strength when near is much greater. The purpose of the demonstration is to make known that Hotel Dieu is now the possessor of such an instrument and it is at the disposal of the medical profession.

Dr. J. T. Nix exhibited many interesting slides to demonstrate correction of congenital deformities of lip and palate. These operations are performed as soon after birth as possible.

Dr. Ruth Aleman stated that babies with such deformities are poor risks in general, for they are prone to infection. If the infant is breast-fed, the risk is much better than otherwise. Babies suffering from malnutrition should be brought up to par before operating. The cuffs on the arms, as shown on the screen, are very necessary to keep the baby's hands away from its mouth.

Dr. J. B. Larose acknowledged himself to be convinced by the evening's talk that the earlier such operations are undertaken, the better it is for the patient.

Dr. Val Fuchs described the technic of Dr. Mackenty who, in order to keep the tongue from reaching the suture line, runs a through and through lead band, coming out on each side of the suture, and over that places a metal disc which is perforated for drainage. The lead band is tied across the disc, so that the child, when placing its tongue to the roof of its mouth, will place it over the disc. Dr. Mackenty has no trouble with sutures sloughing out.

Dr. A. L. Levin presented a number of lantern slides, demonstrating the effect of liver on peptic activity; he made the following remarks:—

"Liver therapy was known to the ancients over 2000 years ago. It was recommended in hydrophobia. Hippocrates advocated it in night blindness. In a compilation in the seventh century, the

value of liver is highly praised. Again in the seventeenth century, the use of liver is urged in various diseases. Whipple in 1925 demonstrated its value in artificially produced anemia. Minot and Murphy deserve the badge of honor for switching pernicious anemia from the incurable class to the rank of diseases amenable to treatment, with the use of liver (1926.) The literature of medicine points to fourteen indications for the use of liver such as hypertension, malnutrition, hemorrhage, anemia, metabolism, liver function, etc. My studies for the past five years convince me that liver definitely influences peptic activity. I am able to demonstrate that cases of achylia gastrica studied with histamine are favorably influenced by liver therapy. In from several weeks to several months the acidity from zero returns to normal. How liver influences this function is a matter for further study. I believe that liver stimulates the product of histamine in the body and the stimulation of histamine influences the peptic activity. It is possible that liver itself contains a substance similar in its function to histamine. In advocating the use of liver in achylia gastrica, I also urge the removal of foci of infection. If a chronic gall bladder exists and is surgical in character, the surgeon should take charge of it and liver used if HCl is absent.

"The final chapter on achylia gastrica has not yet been written in spite of the excellent studies made by Fabre, Einhorn and others. Their pathologic specimens showing atrophy of peptic glands are not a proof that all cases of achylia must have atrophy as an underlying background. We see a large number of cases where the HCl and the enzymes are absent and still we can stimulate the peptic activity and bring the acid and enzymes back showing thereby that the glands have not been atrophied. My plea tonight is that we should not depend on histamine alone as a final indicator in achylia. Liver is a far better agent if used for a period of time."

Dr. D. S. Silverman:—"I doubt that any therapy will restore the secretion of the stomach after it has been absent following the administration of histamine. It is accepted by world authority that the differentiation between functional and organic achylia is based upon the action of histamine. (Achylia gastrica is now a term meaning not the absence of acid from the stomach, but a total absence of all secretions.)

"Ralph Major discovered that histamine is found not only in the liver and other organs of the abdomen, as the kidney and pancreas, but also in the brain and other tissues. Therefore, with the administration of these different substances, we are employing histamine. I have made use of pancreas for its trypsin instead of using pepsin; however, as Dr. Carlson reminded me, the administra-

tion of any protein might do as much toward increasing tryptic activity."

The Executive Session followed, after which the meeting adjourned.

Following the meeting a Clinico-Pathological conference was held, conducted by Dr. Maurice Courlet, and comprising the following cases:

(1) Papillo-cyst-adenoma of ovary-benign, Dr. Walet;

(2) Tumor of right iliac fossa-fibromyoma, Dr. Menendez;

(3) Tumor from right side of neck, perithelioma of carotid gland, metastasis in lymph nodes, Dr. Danna.

TRANSACTIONS OF ORLEANS PARISH MEDICAL SOCIETY

TRANSACTIONS OF ORLEANS PARISH MEDICAL SOCIETY CALENDAR.

June 2—Clinico-Pathological Conference, Touro Infirmary, 11 A. M.

June 3—Pathological Conference, Hotel Dieu, 11 A. M. to 12 Noon.

June 6—Eye, Ear, Nose and Throat Hospital Staff, 8 P. M.

June 8—Touro Infirmary Staff, 8 P. M.

June 9—Clinico-Pathological Conference, Touro Infirmary, 11 A. M.

June 9—French Hospital Staff, 8 P. M.

June 10—Pathological Conference, Hotel Dieu, 11 A. M. to 12 Noon.

June 11—ORLEANS PARISH MEDICAL SOCIETY, 8 P. M.

June 16—Clinico-Pathological Conference, Touro Infirmary, 11 A. M.

June 16—New Orleans Hospital Council, Baptist Hospital, 8 P. M.

June 17—Pathological Conference, Hotel Dieu, 11 A. M. to 12 Noon.

June 17—I. C. R. R. Hospital, 12 Noon.

June 17—Mercy Hospital Staff, 8 P. M.

June 20—Hotel Dieu Staff, 8 P. M.

June 21—Charity Hospital Medical Section.

June 23—Clinico-Pathological Conference, Touro Infirmary, 11 A. M.

June 24—Pathological Conference, Hotel Dieu, 11 A. M. to 12 Noon.

June 27—ORLEANS PARISH MEDICAL SOCIETY, 8 P. M.

June 28—Baptist Hospital Staff, 8 P. M.

June 30—Clinico-Pathological Conference, Touro Infirmary, 11 A. M.

During the month of May besides the regular meeting of the Board of Directors the Society held one regular scientific meeting on May 23, at which the following program was presented:

Allergic Reaction by "Remote Control."

By.....Dr. Narcisse F. Thiberge.

Discussed by Dr. Allan Eustis

Oral Conditions Which a Physician Should Note in Diagnosing Disease.

By.....Dr. Fred J. Wolfe.

Action of Avertin on the Damaged Kidney.

By.....Dr. Clyde Brooks.

Discussed by Dr. I. M. Gage.

The Control of Troublesome Cough in Pulmonary Tuberculosis by the Use of Combined Bacterial Antigens with Extract Anterior Pituitary. A Preliminary Report.

By.....Dr. E. A. Bertucci.

Discussed by Dr. Chaille Jamison.

The meeting scheduled for May 9 was dispensed with because of the meeting of the American Medical Association.

The American Medical Association met here from May 9 to May 13 and was very much of a success. Sessions were held in all available auditoriums in the heart of the city, and all were very well attended. The entertainment features were in keeping with the dignity of the Association and have been commented on very favorably.

The Secretary's office was busy up to and following the convention making preparations and clearing up matters.

The first radio health talk sponsored by the Society was given over W. S. M. B. on Thursday, May 26. These talks will be given every Thursday over this station. Volunteers to read talks are requested to send in their names to the Secretary.

The following doctors were elected to membership during the past month:

ACTIVE MEMBERS—Drs. John J. Archinard, Hugh T. Beacham, Charles A. Born, H. B. deB. Seebold and Maurice Sullivan.

INTERNE MEMBERS—Drs. John A. Alvarez, Leo G. Davis and J. Edwin Granade.

ASSOCIATE MEMBER—Dr. Chas. W. Rossner.

We regret to report the death of one of our Active Members, Dr. Z. T. Young.

TREASURER'S REPORT.

ACTUAL BOOK BALANCE: 3/31/32.....	\$3,688.76
Receipts during March	1,665.36
	\$5,354.12
Expenditures	\$3,947.72
ACTUAL BOOK BALANCE: 4/29/32.....	\$1,406.40

LIBRARIAN'S REPORT.

The Library has added 83 books to its collection during April. Of these new accessions 56 were received by binding, 11 by gift, 4 by purchase and 12 from the New Orleans Medical and Surgical Journal. A notation of new titles of recent date is given below.

The daily record of Library procedures kept by each member of the Staff was continued through April 15, ending a five weeks' period. Such a record will be kept again at another season of the year to show the varied activities of the Library. Reference work April 1-15 is shown on the daily records. Since that time material has been collected on call on the following subjects:

- Changing of intestinal flora by diet.
- Determination of official connections, for program use, of men appearing on Sectional A. M. A. programs.
- Prevention of blindness.
- Diverticulitis with abdominal aneurism.
- Well's disease.
- Experimental fractures.
- Food poisoning.
- Physiology of lymph.
- Cardiospasm in infants and children.
- Strabismus.
- Cancer inheritance in mice (work by M. Van Slyke).
- Esophageal stenosis.
- Maternal and fetal deaths.
- Myelomalacia.
- Thrombosis of the anterior spinal artery.
- Massive collapse of lung.
- Potter's method of staining neurological fibrilla.

- Cause of failure in autogenous vaccine therapy.
- Chemistry of mercurochrome.
- Porthyrin.
- Blastomycosis cutis.
- Work of Pratt on pneumonia.
- Ganglio-neuroma.
- Sedimentation test by Reyner.
- Staining spirochaetes, method by Warthin.
- Pilocartine.
- Blood serum.
- Thorium.
- Gum acacia as a physiological useful colloid.
- Bromo-seltzer.

The American Library Association registering over 1300 met in New Orleans, April 25-30. Miss Marshall made arrangements for 3 Library school dinners and 2 group breakfasts, helped with 2 exhibits, took two periods at the Information Desk and had charge of the free trip through Frenchtown arranged by the Entertainment Committee, engaging guides who took over 450 librarians through the Vieux Carre. A schedule was arranged by which each member of the staff attended at least one morning or afternoon sessions in addition to the regular ones.

NEW BOOKS.

- American Neurological Association—Transactions. 1929.
 - American Laryngological, Rhinological and Otolological Association—Transactions. 1931.
 - Rockefeller Foundation—Methods and Problems of Education v. 20. 1932.
 - Paget—Confessio Medico. 1931.
 - Cannon—Exercises on Anniversary. 1932.
 - Cushing—Intracranial Tumors. 1932.
 - Power—Foundations of Medical History. 1931.
 - Thorek—Surgical Errors and Safeguards. 1932.
 - Ball—Diseases of the Kidney. 1932.
 - Montague—Psyllium Seed. 1932.
 - Nicolle—Naissance, vie et mort des maladies infectieuses. 1930.
 - Rosenfeld—Gynecology and Urology for Nurses. 1931.
 - Wechsler—Textbook of Clinical Neurology. 1931.
 - Stedman—Nurses' Medical Lexicon. 1931.
 - Williams—Insanity Plea. 1931.
- H. Theodore Simon, M. D., Secretary.

LOUISIANA STATE MEDICAL SOCIETY NEWS

H. Theodore Simon, M. D., Associate Editor

REPORT OF HOUSE OF DELEGATES TO THE GENERAL ASSEMBLY.

Gentlemen:

The House of Delegates of the Louisiana State Medical Society was called together at nine o'clock Monday morning, May 9, 1932, and again on Tuesday morning, May 10, 1932.

Immediately after the roll call Dr. C. A. Weiss of Baton Rouge read the Memorial Services for Deceased Members. As a tribute to the memory of the deceased the members rose and stood in silence for one minute.

The Fraternal Delegate from the Mississippi State Medical Association, Dr. E. H. Jones of Vicksburg, was introduced and made a few appropriate remarks.

The report of the President, Dr. S. C. Barrow, was read and received with a great deal of enthusiasm.

The report of the Secretary-Treasurer, Dr. P. T. Talbot, was read and adopted.

The report of the Chairman of the Council, Dr. H. E. Bernadas was read and accepted.

The Councilors of the Eight Congressional Districts reported the activities in their respective districts.

The various standing and special committees submitted their reports covering their activities during the past year, which were adopted by the House of Delegates. Of particular interest was the report of the Committee on Cancer. This report was followed by an address by Dr. C. C. Little, representing the American Society for the Control of Cancer, who briefly outlined the work of the Society for the Control of Cancer to the meeting. The Committee on Budget and Finance recommended that future investments be made in United States Government bonds.

The valuable and extensive report of the Louisiana State Board of Medical Examiners was read and received. The names of Dr. C. Grenes Cole and Dr. Leon J. Menville were elected to be submitted to the Governor in lieu of the expiration of term of office of Dr. Leon J. Menville.

The House of Delegates received a valuable report from our Fraternal Delegate to the Mississippi State Medical Association, Dr. Allan Eustis.

The House of Delegates voted to extend an invitation to the Interstate Post Graduate Medical Assembly of North America to hold their 1933 meeting in New Orleans.

In regard to a communication received from Dr. W. C. Woodward, Director of the Bureau of Legal Medicine and Legislation of the American Medical Association, the House adopted a resolution that the matter of criminal institutes in Louisiana be referred to the Legislative Committee

with power to canvass the situation and take such steps in the future as will bring the matter to the public in such a form that ultimately we will be the beneficiary of an institute for criminals.

A resolution was adopted condemning the practice of certain health units in the State entering into competition with the doctors, and requesting the State Board of Health to take necessary steps to stop it effectively.

The House also adopted a motion that the Louisiana State Medical Society go on record as memorializing the State Legislature to repeal the state narcotic law.

A resolution was adopted condemning the use and abuse of our State Hospitals by the non-indigent, which is becoming more serious each year and is seriously affecting the doctors of the whole State, and that Committees be appointed from Shreveport and New Orleans to investigate the problem and report their findings with recommendations to the Governor of the state, the respective boards and superintendents of the hospitals.

A resolution was adopted that whereas about half the physicians of our state have no contact with our Society, and that as our Journal contains much which might induce them to join the State Society, that the matter of sending the Journal to all non-members in the state, if the finances can be arranged, be referred to the Journal Committee for action.

A resolution was adopted that whereas the young physician just entering the practice of medicine has had, with few exception, no business training, and that we all recognize to carry on properly due consideration must be given to the business side of our work, and the Bureau of Medical Economics of the American Medical Association has taken notice of this and is recommending that medical colleges arrange for lectures on Medical Economics to their students, that the State Society endorse this work in principle and recommend to the medical schools of Louisiana that they adopt same in practice.

A resolution was adopted providing that as the profession generally should be appraised of the activities for the coming year of the incoming President, that the President of the Society be publicly installed at the annual meeting at which time he shall set forth, as near as he can, his program for the coming year.

A resolution was adopted providing that the Chairman appoint a Committee of three to investigate carefully from every standpoint the feasibility of the plan of a full-time, trained executive whose duty it will be to devote his whole time in cooperation with the component Parish and

District Societies in planning and putting into effect programs for the public, as well as the profession, which will rebound to the interest of the medical profession and the public in general, and report with recommendations at our next annual meeting.

A motion was adopted that the matter of the controversy between the East Baton Rouge Parish Medical Society and the council of the Louisiana State Medical Society with reference to the transfer of membership be referred to the incoming Executive Committee.

The Committee on Resolutions begs to report that the Louisiana State Medical Society expresses its high appreciation and thanks to the following, to-wit:

To Dr. John A. Lanford, President, and the members of the Orleans Parish Medical Society, hosts in this auspicious meeting.

To Dr. Shirley C. Lyons, Chairman of the Committee on Arrangements, and to the Chairmen and Sub-Committees for their indefatigable labors in making this Convention a success.

To President Dinwiddie and Dean Bass of the Medical Department of Tulane University for the use of the offices and Auditorium of the Hutchinson Memorial, and for their sumptuous luncheon.

To Dr. Arthur Vidrine, Dean of the Louisiana State University Medical Center, and Superintendent of Charity Hospital, and his Staff, for their splendid luncheon.

To the Retiring President, Dr. S. C. Barrow, in appreciation of his able, tactful and brilliant administration.

To Dr. P. T. Talbot, Secretary-Treasurer of the State Society, for the fine manner in which he has conducted the affairs of his office, evidenced by the outstanding progress manifested in the affairs of the Society.

To Mrs. Mary Crossen Kagy, Assistant Secretary-Treasurer, and Miss Shirley Osborne of the Louisiana State Medical Society, for their devotion to duty and interest in the discharge of their duties.

To Dr. J. J. Ayo, Chairman of the House of Delegates, for the expeditious and impartial rulings that greatly facilitated the sessions of the House of Delegates, and to the New Orleans Press.

The following officers, being duly nominated, were elected:

President—Dr. Roy B. Harrison, New Orleans.

President-Elect—Dr. C. A. Weiss, Baton Rouge.

First Vice-President—Dr. J. T. Nix, New Orleans.

Second Vice-President—Dr. C. M. Horton, Franklin.

Third Vice-President—Dr. W. P. Butler, Shreveport.

Secretary-Treasurer—Dr. P. T. Talbot, New Orleans.

Councillors:

First District—Dr. H. E. Bernadas, New Orleans.

Second District—Dr. D. N. Silverman, New Orleans.

Fourth District—Dr. W. H. Browning, Shreveport.

Fifth District—Dr. J. P. Vaughan, Monroe.

Committees:

Committee on Scientific Work—Dr. P. T. Talbot, Chairman; Dr. A. E. Fossier, both of New Orleans; Dr. T. P. Lloyd, Shreveport.

Committee on Public Policy and Legislation—Dr. C. A. Weiss, Chairman, Baton Rouge; Dr. F. M. Johns, New Orleans; Dr. Glenn J. Smith, Jackson; Dr. Roy B. Harrison, President, New Orleans; Dr. P. T. Talbot, Secretary-Treasurer, New Orleans.

Committee on Medical Defense—Dr. E. L. Sanderson, Shreveport, for a term of three years.

Committee on Hospitals—Dr. Chas. Chassaing, Chairman, New Orleans; Dr. J. L. Scales, Shreveport; Dr. O. P. Daly, Lafayette; Dr. C. P. Gray, Monroe; Dr. A. J. Comeaux, Youngsville.

Committee on Health and Public Instruction—Dr. W. H. Seemann, Chairman, New Orleans; Dr. F. R. Gomila, New Orleans; Dr. G. M. G. Stafford, Alexandria; Dr. J. Q. Graves, Monroe; Dr. J. K. Griffith, Slidell.

Committee on Journal—Dr. W. H. Seemann and Dr. Randolph Lyons, both of New Orleans, for terms of three years each.

Delegate to the American Medical Association—Dr. W. H. Seemann, New Orleans, 1933 and 1934.

Alternate to the American Medical Association—Dr. A. A. Herold, Shreveport, 1933 and 1934.

Dr. J. J. Ayo of Raceland was re-elected as Speaker of the House of Delegates.

Lake Charles was selected as the next place of meeting in 1933, the dates to be determined later by the Executive Committee.

Respectfully submitted,

P. T. Talbot, M. D.,
Secretary-Treasurer.

ECHOES OF THE AMERICAN MEDICAL ASSOCIATION.

The meeting of the American Medical Association in every way was a great success, despite the fact that the attendance, somewhat under 3,000, was not as large as it had been in the past few years. This was to be expected, however, in view of the present economic condition of the country, so that as a matter of fact the registration was greater than was anticipated.

Dr. Dean Lewis, Professor of Surgery of John Hopkins, was elected as President. Dr. Rudolph Matas was again honored by the organization, being elected First Vice-President. Dr. Clyde Brooks was selected as Chairman of the Section on

Pathology and Physiology. Several of the local men were elected as Vice-Chairmen of the Sections. Dr. I. I. Lemann was made Vice-Chairman of the Section on Medicine; Dr. W. H. Perkins was elected as Vice-Chairman of the Section on Public Policy and Hygiene; and Dr. J. H. Musser as Vice-Chairman of the Section on Therapeutics and Pharmacology.

Milwaukee was selected as next year's convention city.

Dr. H. W. E. Walther, of New Orleans, represented the Section on Urology in the House of Delegates of the American Medical Association at their recent meeting. As he was elected, in Philadelphia, for a term of two years, he will represent his Section again in Milwaukee next year.

A splendid tribute was paid to the memory of Dr. Marcus Feingold by the Section on Ophthalmology. Resolutions were adopted honoring Dr. Feingold, and at the termination of these ceremonies the Section as a body went to Metairie Cemetery to place a wreath on the grave of this distinguished ophthalmologist, for many years Professor of Ophthalmology in Tulane Medical School.

During the week of the American Medical Association the Louisiana State Coroners Association met. Dr. Willis Butler of Shreveport was elected President; Dr. L. L. Ricks of Independence, Secretary-Treasurer; and Dr. C. M. Horton of Franklin was elected Vice-president of the organization.

Dr. Cecil Lorio of Baton Rouge was elected President of the Louisiana State Pediatric Society, which was held during the week of the American Medical Association. Dr. E. R. Socola and Dr. Maud Loeber of New Orleans were elected Vice-president and Secretary-Treasurer respectively.

One of the interesting features of the meeting were the conferences of the special societies. The American Heart Association had a two day session preceding the meeting. The Association for the Study of Allergy also met on Monday and Tuesday, and the American Committee for the Control of Rheumatism had a splendid program. The American Society of Clinical Pathologists had a most enthusiastic convocations on May 6 and 7, while the Medical Veterans of the World War celebrated with their annual dinner on the night of May 10.

The social events of the American Medical Association were well attended, and the several committees that had to do with the President's Reception, the medical school banquets, and other

social activities, deserve much credit for the splendid entertainments they provided for the members of the national organization.

To be congratulated are the ladies of the Woman's Auxiliary. Under the able leadership of Mrs. Joseph Hume they provided a series of entertainments and pleasureable events which reflected great credit on their hospitality and afforded a most cordial reception of the visitors. The entertainments were so varied and so diverse that no stranger in the City who partook of them all could have left without having learned much of New Orleans, old and contemporaneous, as well as having a delightful and agreeable time.

DEDICATION OF THE NEW LOUISIANA STATE UNIVERSITY MEDICAL CENTER.

On Tuesday, May 10, a most impressive ceremony took place when the New Medical School Building of the Louisiana State University Medical Center was formally dedicated. The dedicatory exercises were held on the lawn of the hospital between the Dibert Memorial and the new building. Here a large audience congregated to hear a series of splendid addresses and talks. Dr. Arthur Vidrine, Dean of the Medical School, gave the opening address. He explained why the new medical school should rapidly become one of the great schools of the country. A splendid building, a wealth of clinical material, and an excellent faculty would make this possible. Following Dr. Vidrine's talk Dr. James M. Smith, President of the University, gave a short address, and following this Mr. C. L. Weiss, the architect of the building, officially presented it to the Louisiana State University. A number of addresses was then given by distinguished medical educators, including Dr. Kenneth M. Lynch, Professor of Pathology at the University of South Carolina; Dr. Joseph Collins of New York; Dr. Stuart Graves, Dean of the University of Alabama School of Medicine; Dr. Alfred W. Adson, Associate Professor of Surgery at the Mayo Foundation. These addresses were followed by two on public health matters. Dr. Jacob C. Geiger, Director of Public Health in San Francisco, a graduate of Tulane; and Dr. Geo. W. McCoy, Director of the National Institute of Health, United States Public Health Service, spoke most stimulatingly. The last two speakers of the day were Governor-Elect O. K. Allen, and Senator Huey P. Long.

NEWS ITEMS.

Prof. O. W. Betha, of the faculty of the Graduate School of Medicine of The Tulane University of Louisiana, attended a meeting of the Revision Committee, U. S. Pharmacopoeia at Philadelphia, Pa., April 30, 1932.

Dr. Bethea also attended the meeting of the American Therapeutic Society held at Baltimore, Md., May 16 and 17, 1932, and presented a paper on "Differential Diagnosis of Diseases of the Lungs." He was elected to the Council of the Society for a five year term.

On May 3, 1932, Prof. F. E. LeJeune, of the faculty of the Graduate School of Medicine of the Tulane University of Louisiana, held a clinic and addressed the meeting of the Dallas Academy of Ophthalmology and Otolaryngology on "Suspension Laryngoscopy and Cinematographic Study of the Larynx."

Asst. Surgeon Thomas B. McNeely, was relieved from duty at New Orleans, La., on or about May 25, 1932, and assigned to duty at the Marine Hospital, Ft. Stanton, N. Mex.

Dr. Urban Maes, Professor of Clinical Surgery in the Graduate School of Medicine of the Tulane University of Louisiana, attended the recent meeting of the American Surgical Association held at New Haven, Conn.

EYE, EAR, NOSE AND THROAT HOSPITAL.

Dr. J. Raymond Hume and Dr. Francis E. LeJeune have been elected as surgeons in charge of the ear, nose and throat department and Dr. M. Earle Brown was named surgeon in charge of the eye department of the Hospital.

INFECTIOUS DISEASES IN LOUISIANA.

Dr. J. A. O'Hara, State Board of Health of Louisiana, in collaboration with the Treasury Department of the United States Public Health Service, has issued the following weekly reports on the infectious diseases in the state. Abstracted these reports show the following: For the week ending April 23 there were reported 126 cases of syphilis, 86 of measles, 47 of gonorrhea, 27 of tuberculosis, 22 of cancer, 17 of diphtheria, and 18 of pneumonia. There were 14 cases of typhoid fever reported this week; also 3 cases of small pox and 3 cases of poliomyelitis. For the week ending April 30 the incidence of measles had fallen to 37 cases and syphilis to 36. The following diseases were reported in double figures: Twenty-eight cases of pulmonary tuberculosis; 25 of diphtheria, 19 of pneumonia, 19 of influenza, 17 of typhoid fever, 13 of cancer, 12 of whooping cough, and 11 of gonorrhea. Five cases of small pox were reported, 1 of leprosy, and 1 of poliomyelitis. The succeeding week showed a marked increase in the number of cases of measles, 81 being reported this week, and an increase is noted also in the number of cases of syphilis and tuberculosis, 58 of the former and 42 of the latter being listed. Pneumonia had increased to 26 cases and typhoid

fever to 19. Influenza had fallen to 13, diphtheria to 16 cases listed. In addition to the usual number of other diseases, it is noted that there were reported also 8 cases of small pox from the Parish of LaSalle, and 2 cases of poliomyelitis from Orleans Parish. For the nineteenth week of the year, which ended May 14, the diseases reported in largest numbers were as follows: Eighty-two of measles, 37 of syphilis, 32 of pneumonia, 31 of pulmonary tuberculosis, 27 of diphtheria, 26 of cancer, 13 of scarlet fever, 12 each of typhoid fever and whooping cough. Nine cases of small pox were reported, 5 of them originating in Iberia Parish. There was 1 case of poliomyelitis reported from Orleans Parish.

HEALTH OF NEW ORLEANS.

The Department of Commerce, Division of Vital Statistics, reports for the week ending April 16 a death rate for the City of New Orleans of 16.0 as a result of the deaths of 145 citizens of the City, 91 of whom were white and 54 colored. The infant mortality for this same week was 91, as a result of the death of 9 white and 7 colored children. For the week ending April 23 the death rate was 17.1, somewhat higher than the previous week. In this week there were 155 deaths, 97 among the white and 58 in the colored population. The infant mortality rate was only 57. The following week there was a slight decrease in the number of deaths, 137 occurring in this week, divided 84 white and 53 colored, with a death rate for the whole of 15.1, for the white 13.0 and for the colored 20.2. The infant mortality rate was 80. For the week ending May 7 the deaths had fallen to a total of 122, giving the low rate of 13.4. The 68 deaths in the white population gave a death rate of 10.5, while the 54 deaths among the colored gave a death rate in this race of 20.5. The infant mortality rate was 97. For the year 1932, eighteen weeks having elapsed, the death rate has been only 15.9, as contrasted with the same period of 1931 with the rate of 18.6. This rate incidentally for 1931 was considerably lower than in previous years.

WOMAN'S AUXILIARY NEWS.

ORLEANS PARISH.

The Woman's Auxiliary to the Orleans Parish Medical Society delayed their monthly May meeting from the second Wednesday until the fourth Wednesday of the month on account of the meeting of the American Medical Association which was held during that week, so the annual reports and election of officers will be printed in next month's Journal.

LOUISIANA STATE.

The Woman's Auxiliary to the Louisiana State Medical Society held its annual meeting and elec-

tion of officers Monday, May 9, at the Orleans Club. The President Mrs. W. S. Walther called the meeting to order, and the reports of the various standing committees were given. These showed that much progress had been achieved in all fields especially in those of organization and Hygeia.

The morning session was interrupted by luncheon where the guests of honor were some of the members of the National board, Mrs. McClothlan the president and Mrs. Walter Jackson Freeman the president-elect being among those present.

Mrs. S. M. E. Blackshear was toastmistress and was excellent in her presentation of our honored guests.

After luncheon the report of the presidents of the auxiliaries of the different parishes were presented. Then the Chairman of the nominating committee. Mrs. Herman B. Gessner of New Orleans, brought in the following slate which was accepted in whole.

The officers elected for the coming year read as follows:

President-elect—Mrs. John H. Musser, New Orleans.

First Vice-President—Mrs. George Kreeger, Lake Charles.

Second Vice-President—Mrs. W. J. Norfleet, Shreveport.

Third Vice-President—Mrs. J. B. Vaughan, Monroe.

Fourth Vice-President—Mrs. J. B. Benton, Minden.

Recording Secretary—Mrs. Francis Lejeune, New Orleans.

Treasurer—Mrs. Isidore Cohn, New Orleans.

Parliamentarian—Mrs. Charles Rew, Shreveport.

Mrs. Walthers then inducted Mrs. Lucas of Shreveport into office, who, after making a graceful speech asking for co-operation from all the parishes, ended up all old business and adjourned the meeting.

CADDO PARISH.

The Shreveport Auxiliary is again deserving of our deepest admiration for their wonderful editing of the Tri-State Journal, which put out an edition devoted entirely to a Survey of Auxiliary Work. It was compiled entirely by the Woman's Auxiliary and it is such a fine piece of work that I think all auxiliaries as a whole throughout the United States should be more than proud of the activities of the Women in the Shreveport Auxiliary.

Then too their report, which follows, is more than commendable:

An important part of the work of the Health Committee has been to secure dependable health programs for various organizations, and for the children of the schools. The Doctors of Shreveport have offered their services to go to any association and speak on health subjects. Many of

the Parent Teacher's Associations have welcomed this offer and have requested health talks. Each member of the Committee has held herself responsible for the speakers for five of the city schools, thus providing speakers for twenty-five schools. The Chairman of "The Shreveport Medical Society" co-operates with us in finding the speaker most suitable for the subject and occasion.

Secondly the Health Program has been further carried out by furnishing each school library with an instructive pamphlet on Communicable Diseases. These pamphlets inform the layman of the symptoms, incubation period, how transmitted, prevention treatment and immunity of the most common of children diseases.

This Committee helped to seal Christmas health seals to the children of the schools; this money was given to aid the children of the Preventorium.

THE AMERICAN MEDICAL MEETING.

In New Orleans for the first time a Woman's auxiliary has had the honour and pleasure of entertaining about 900 wives of the members of the American Medical Association. The pleasure of meeting and knowing so many from the different sections of our country has indeed been a keen inspiration. To sit in at the meetings and hear the quite marvellous reports of work done all over was a privilege that was indeed great.

The meeting was called to order in the Jerusalem Temple by Mrs. McGlothlan, with the invocation given beautifully by Bishop J. Craik Morris. The business was gone through with dispatch and then a buffet luncheon was enjoyed.

The afternoon was spent roaming through the Vieux Carre with guides pointing out the historical points and relating many interesting stories of New Orleans when in French possession, or in its Spanish aspect—ending up with tea at the Patio Royale, where we spoke to those we knew and also to those we did not.

Wednesday, business in the morning then to the lovely Southern Yacht Club for lunch, and almost best of all, the trips through the private gardens with tea at some hospitable house. The evening was pleasantly spent at the New Orleans Country Club, where we were enchanted by the dances which were so ethereally beautiful, by the spirituals which brought to us the soul of the Southern negro and finally, for as many of us who could by that time, dancing, with punch and sandwiches to refreshen.

Thursday morning meeting again, another luncheon and our choice of trips. The Oak alley plantation proved to be the most popular.

The reception and Presidents Ball was all that we had expected it to be.

Friday was devoted to a trip to the lovely gulf coast which was quite worth while seeing. And so the tenth meeting of the Woman's Auxiliary to The American Medical Association came to a pleasing end.

M. H. Musser.

MISSISSIPPI STATE MEDICAL ASSOCIATION NEWS

L. S. Lippincott, Editor

Jacob S. Ullman, Associate Editor

D. W. Jones, Associate Editor

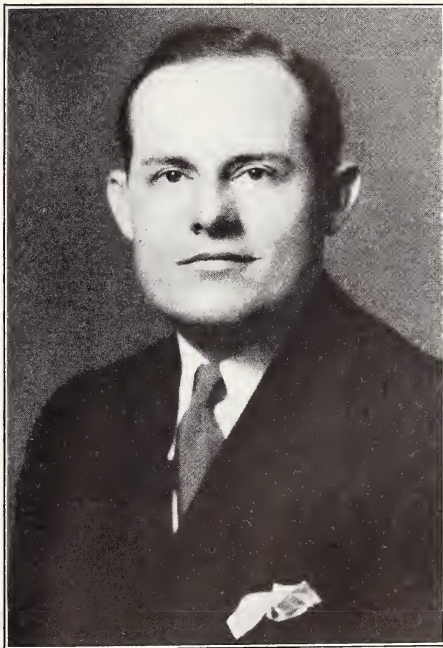
THAT WE MAY KNOW EACH OTHER BETTER.

Hubert Lowry Rush, M. D., was born at Meridian, July 16, 1897. He received his preliminary education in the Meridian public and high schools; his B. S. degree from the University of Mississippi in 1919; and his M. D. degree from the University of Pennsylvania in 1921. He was licensed to practice medicine in Mississippi in 1921. He married Miss Mary Geneva Hutson of McCall, on April 8, 1924, and has one son, H. Lowry, Jr.

Dr. Rush has been surgeon on the staff of Rush's Infirmary, Meridian, since 1921; consulting surgeon of the East Mississippi Insane Hospital since 1929; visiting surgeon of the Matty Hersee Charity Hospital, 1924 to 1931; field examiner of the United States Veterans Bureau since 1921; and is local surgeon of the Gulf, Mobile and Northern Railroad. He spent two months in post-graduate work in European clinics in 1925.

Dr. Rush is a member of the East Mississippi Medical Society, having served as its secretary for six years, the Mississippi State Medical Association, the American Medical Association, Southeastern Surgical Congress, American Medical Editors and Authors Association, and the American Association of Industrial Surgeons and Physicians. He is a Scottish Rite Mason and steward in the Methodist church.

Associated with his brother, Dr. Leslie V. Rush, Dr. Rush operates Rush's Infirmary, a hospital of 52 beds. This institution is on the approved list of the American College of Surgeons. Dr. Rush limits his practice to general surgery.



HUBERT LOWRY RUSH, M. D.
Meridian, Mississippi,
Councillor, Sixth District,
Mississippi State Medical Association.

CALENDAR.

June 1.—Claiborne County Medical Society, Port Gibson, 3 P. M.; Staff of Chamberlain-Rice Hospital, Natchez; Staff of Vicksburg Infirmary, 7 P. M.; Staff of Rush's Infirmary, Meridian, 7 P. M.; Staff of Dr. F. G. Riley's Children and Maternity Hospital and Clinic, Meridian, 7 P. M.

June 2.—Pike County Medical Society, McColgan Hotel, McComb, 7 P. M.; Staff of McRae Hospital, Corinth, 2 P. M.

June 3.—Natchez Medical Club, 1 P. M.

June 6.—Staff of Jackson County Hospital, 7:30 P. M.; Jackson County Medical Society, Jackson County Hospital, 7:30 P. M.; Staff of Meridian Sanitarium, 7:30 P. M.; Staff of South Mississippi Charity Hospital, Laurel, 7 P. M.; Staff of Geo. C. Hixon Memorial Hospital, Electric Mills, 8 P. M.

June 7.—Staff of King's Daughters' Hospital, Brookhaven, 7:30 P. M.

June 8.—Staff of King's Daughters' Hospital, Greenville, 7 P. M.; Harrison-Stone-Hancock Counties Medical Society, 7:30 P. M.

June 9.—Staff of Aberdeen Hospital, 8 P. M.; Staff of Vicksburg Hospital, 6:30 P. M.

June 10.—Staff of Anderson Infirmary, Meridian, 7 P. M.; Staff of Vicksburg Sanitarium, 6:30 P. M.

June 13.—Staff of South Mississippi Charity Hospital, Laurel, 7 P. M.

June 14.—Staff of Natchez Sanatorium, 7 P. M.; Issaquena-Sharkey-Warren Counties Medical Society, Y. M. C. A., Vicksburg, 7 P. M.; Staff of Tupelo Hospital, 7:30 P. M.; Winston County Medical Fraternity, Louisville.

June 16.—East Mississippi Medical Society, Neshoba County Fairgrounds, 2:30 P. M.

June 17.—Natchez Medical Club, 1 P. M.

June 20.—Staff of South Mississippi Charity Hospital, Laurel, 7 P. M.

June 21.—Northeast Mississippi Thirteen Counties Medical Society, Amory, 1 P. M.; Staff of Natchez Charity Hospital, 8 P. M.; Central Medical Society, Jackson, 7 P. M.

June 27.—Staff of South Mississippi Charity Hospital, Laurel, 7 P. M.

THANK YOU.

"I want to congratulate you on the Journal. I know the members are all proud of it."

R. M. Stephenson, Lexington.

LEFLORE COUNTY.

Jesse Robert Hightower, son of Dr. L. H. Hightower of Itta Bena, has been awarded one of the scholarships offered by the Commonwealth Foundation of New York, which enables him to take a four years' course in medicine at Tulane.

Ira B. Bright, son of the late Dr. Bright of this place, will serve his internship at Touro, after graduating at Columbia, New York.

Stirling Claiborne, son of Dr. Claiborne, the rector of the Episcopal church of this place, after graduating at the University of Virginia in May, will serve his internship at the Massachusetts General Hospital, Boston.

Fred Sandifer, son of Dr. F. M. Sandifer of this place, is studying medicine at the University of Chicago.

Gwin Mounser, of Greenwood, a nephew of Dr. John Darrington of Yazoo City, is studying medicine at Tulane.

Dr. Chas. L. Cooper of this place, a recent graduate of the University of Tennessee will serve his internship at the Hollywood Hospital in Hollywood, California.

Tate Carl of Greenwood is taking his course in medicine at the University of Tennessee.

W. B. Dickins, County Editor.

NESHOBA COUNTY.

Doctors who attended the State Medical Association Meeting at Jackson were W. R. Hand, W. H. Banks, Charlie Harrison, J. R. Plummer, and J. S. Hickman. Dr. J. S. Hickman was elected Vice-President from the middle district.

Drs. W. R. Hand, L. A. Majure, W. H. Banks and J. S. Hickman attended the East Mississippi Medical Society meeting held in Meridian April 21, and all reported one of the best meetings ever held. Dr. Sidney K. Simon of New Orleans, was the pinch-hitter of the program.

The meeting of the East Mississippi Society will be held at the Neshoba County fairgrounds June

16 at 2:30 P. M. We are expecting a very interesting program, eats, etc.

Dr. Charlie Harrison has been sick the past week with an infected hand. The report we are glad to say is that he is very much improved.

Dr. J. Stribling is still very actively engaged in his profession. However, he just has to get off occasionally and try out his twenty-five hounds fox hunting.

Dr. W. L. Watkins spends his spare time from his practice farming.

Drs. Claude Yates and M. E. Cole go fishing when they can find the time and forget all about the depression. I feel like the writer is going to join them.

Dr. J. R. Plummer keeps too busy seeing after two saw mills to be seen anywhere else except on the road between the two mills.

Drs. L. A. Majure and W. H. Banks are in the rural part of the county and for some reason they are staying away from our little city, however, both are very busy doctors.

Drs. W. R. Hand and J. S. Hickman had the misfortune to have their Ford cars stolen. We have decided that it is cheaper to drive our wives' cars as we do not have the wherewiths to get another one, and, too, when the roads are bad and also the pay, we do not have a way to go. We are not so fortunate as our governor, Mike Conner, who had his stolen one day and the next day it was found in Atlanta, Georgia.

J. S. Hickman, County Editor.

WINSTON COUNTY.

We are having extremely healthful conditions through this county. Doctors are really tired of resting.

Dr. C. L. Richardson reports a fine catch of brim recently on a fishing trip. He was a little jealous of his boys who beat him in the catch.

Some of our doctors attended the State Medical Association at Jackson recently. Among them were Drs. T. F. Kilpatrick and W. H. Hickman. Others together with the writer intended going but were prevented by a few cases in charge.

We commend Dr. Bernard Hickman for the reputation he is making playing bridge. This is fine. We wish him all the thrills that go with the game.

Dr. S. W. Pearson took a patient to a Jackson Hospital recently.

We are looking forward with interest to a treat from Dr. W. W. Parks who speaks on Child Clinic at the Rotary tomorrow.

W. L. Montgomery, County Editor.

PIKE COUNTY.

The Commonwealth Fund has contributed \$650.00 to the Pike County Medical Society to be

used in getting men of outstanding ability to visit the society and hold clinics. Dr. Chas. Bloom, New Orleans, and Dr. John G. Carr, Chicago, have been our guests recently.

The following members of the Pike County Medical Society attended the meeting of the State Association in Jackson: Drs. Thomas Purser, D. T. Brock, M. D. Ratcliff, G. W. Robertson, T. E. HeWitt, R. H. Brumfield.

Dr. W. M. Biggs, Osyka, has returned from Baltimore where he went to consult eye specialists in regard to being operated on for cataracts.

Dr. J. M. Smith, Magnolia, and Dr. W. C. Hart, McComb, have returned from a four months' post-graduate course at Tulane.

Dr. H. C. Hatcher, secretary, has resigned and moved to Baton Rouge, La. Dr. Hatcher will be associated with the Standard Oil group in his new location.

Robert H. Brumfield.

MONROE COUNTY.

Your correspondent was greatly disappointed in that he did not get to attend the recent meeting of the State Association. It was the second time in over twenty-five years that I have missed. This time it was because I was sick, the other time because of sickness in another member of my family. How I did want to be with you and all my friends. This disappointment was made easier to bear by the receipt of a telegram from the Association, telling me that I was missed. Several of my friends wrote me expressing regret at my sickness and absence. But of all the kindly messages received, the one most appreciated, perhaps, was a letter from the wife of one of my dearest friends. I want her and him to see this public acknowledgment of my appreciation. I was delighted to know that it was such a splendid meeting—the program was fine, indeed, and I am sure the fellowship was most enjoyable to all in attendance.

I was much pleased to learn that Dr. Dicks was selected as president-elect. Dr. Dicks is so capable of reflecting honor on the Association and withal is so deserving of the honor bestowed on him. Of course, one cannot see all his friends honored at one time but honors usually come to the deserving and to those who wait.

The Thirteen Counties Society will hold its next regular quarterly meeting in Amory on Tuesday, June 21. Everybody is invited to be present and see a real society in action. Especially, do I want some of my friends from other parts of the state to come. To any one who counts himself my friend, I send this special invitation.

Dr. C. E. Boyd of Hatley, our most recent ex-president, has been indisposed recently but I feel sure he is quite well by now. Mrs. Reed, the

wife of Dr. W. N. Reed of Amory, spent last week in hospital because of the necessity for some minor surgery. I am glad to report that she is back at home and practically well again.

I had planned to go to New Orleans to attend the meeting of the American Medical Association, but had to forego this pleasure because of some professional obligations that could not well be shifted. I, again, had to miss friendly greetings from those I love to meet.

Do not forget the time and place—Amory, June the twenty-first. A good meeting and a hearty welcome is promised.

G. S. Bryan, County Editor.

EAST MISSISSIPPI MEDICAL SOCIETY.

The East Mississippi Medical Society met in the Lamar Hotel, Meridian, Thursday, April 21. Forty-nine members and eleven guests were present.

A brief report was given by delegates, Drs. M. J. L. Hoyer and T. F. Kilpatrick, in regard to the State Medical Association meeting in Jackson.

Dr. C. R. Stingily, Chairman of the Committee on a Medical Conference, reported that the committee was still at work on plans for the conference.

On motion by Dr. W. H. Banks, a message of sympathy was sent to Dr. S. A. Majure, in the recent loss, by death, of his daughter, and illness in his family. Through suggestion by Dr. T. H. Cleveland this message was delivered by Dr. Dudley Stennis.

Dr. S. A. Majure was lauded for his services to the society and on motion by Dr. W. H. Banks was voted an honorary member.

The following program was rendered:

1. Meningitis.—Dr. D. L. Walker, Meridian.

Discussed by Drs. T. D. Boudreaux, T. K. Kilpatrick, and A. C. Bryan.

2. Achalasia of the Esophagus, with Presentation of Two Successfully Treated Cases.—Dr. Sidney K. Simon, New Orleans, La.

Discussed by Drs. W. J. Coleman, D. L. Arnold, T. D. Bourdeaux Leonard Hart, and J. S. Hickman.

3. Injection Treatment of Hemorrhoids.—Dr. W. B. Hickman, Louisville, Miss.

Discussed by Drs. R. G. Hand, H. H. Robinson, T. K. Kilpatrick, Willie Walley, A. C. Bryan, and W. H. Banks.

Just before closing the Society received a welcome surprise, in an invitation by the Neshoba County doctors for the next meeting to be held on the Neshoba County Fairgrounds, June 16, where barbecued meat and refreshments are to be served. The wives of doctors were also cordially invited.

T. L. Bennett, Secretary.

REPORT OF BUREAU OF COMMUNICABLE DISEASES.

The Bureau of Communicable Diseases of the Mississippi State Board of Health reports for the month of March, 1932, typhoid fever, 26 cases; smallpox, 164 cases; diphtheria, 55 cases; scarlet fever, 58 cases; pellagra, 385 cases; tuberculosis, 114 cases. Reports for the month were received from 98.2 per cent of physicians.

THE EX-PRESIDENTS CLUB.

One of the interesting side-lights of the State Medical Association meeting was the annual banquet of the ex-presidents. This took place at 12:30 on Wednesday in the Tea Room of the Robert E. Lee Hotel, where an excellent chicken dinner was served. The chairman presides in the order of sequence. Dr. D. J. Williams of Gulfport, president in 1912, was the presiding officer. After dinner, Dr. Williams called on a few of the members for remarks beginning with Dr. P. W. Rowland, Oxford, president in 1895, and the oldest member present. Dr. Rowland has been a member of the State Medical Association for 49 years, and has attended nearly every meeting. Four years ago at the organization of this club, he issued a challenge to the ex-presidents to meet him every year for the next ten years. He certainly looks good for the balance. Chairman Williams next called on Dr. John C. Culley of Oxford, as the youngest ex-president, his term of office expiring with this meeting. Dr. Culley is an old Jackson boy, son of our Dr. B. L. Culley, and has made good as an executive officer of the association. Dr. W. S. Leathers, formerly dean of the Medical Department of the University of Mississippi, and for many years executive officer of the State Board of Health, now dean of the Medical Department of Vanderbilt University, was next called upon and made a very enjoyable talk. Dr. James M. Acker, President-Elect, whose administration begins at the close of this meeting, was next called. He expressed his appreciation for the honor conferred upon him and asked the advice and assistance of his fellow club-men in carrying out the work of the new year. Another veteran, Dr. H. H. Haralson of Vicksburg, president in 1896, was called on and responded with some reminiscences of former days.

This is the fifth meeting of the Ex-Presidents Club, which has shown a remarkable attendance, the last three years showing the high water mark of 80 per cent present. Considering their ages and residences in many states, this certainly is a remarkable showing of continued interest on the part of the ex-presidents, and should be an example well worthy of emulation by the younger members.

The following members were present: Drs. P. W. Rowland, H. H. Haralson, C. D. Mitchell, W. W. Crawford, D. W. Jones, D. J. Williams, J. S. Ullman, T. M. Dye, Willis Walley, W. S. Leathers, F. J. Underwood, J. W. Barksdale, Henry Boswell, S. W. Johnston, W. A. Dearman, John Darrington, W. H. Frizell, John C. Culley, Jas. W. Acker. D. W. Jones.

OUR LAST STATE MEETING.

Many complimentary remarks were heard among the members and guests anent our recent meeting. Many went so far as to say that it was the best all-round meeting they ever attended. The programs were well arranged with high class papers and spirited discussions, not too long. President Culley dispatched business with expedition, and to the entire satisfaction of all. The arrangements by the local committee were as nearly perfect as possible, and received the warm endorsement of everyone present. The Women's Auxiliary, in a quiet way, made the visiting ladies feel at home, and gave them a good time. The tea and dance to the membership was a most enjoyable affair. The several special luncheons were most profitable and enjoyable.

On the whole, it was one of the best meetings we have had, and we promise the boys another still better next year. D. W. Jones.

WOMEN'S AUXILIARY TO THE ISSAQUENA-SHARKEY-WARREN COUNTIES MEDICAL SOCIETY.

A regular monthly meeting of the Women's Auxiliary to the Issaquena-Sharkey-Warren Counties Medical Society had a most enjoyable luncheon meeting Tuesday, April 19, at the Hotel Vicksburg, with twenty-one members present. Mrs. H. S. Goodman, Cary, vice-president, presided.

Mrs. W. H. Parsons, Vicksburg, played several piano selections, Mrs. L. E. Martin, Anguilla, read a one-act playlet, "What Every Woman Knows," with apologies to Sir James Matthew Barrie.

Mrs. Leon S. Lippincott made a report on the state meeting held in Jackson. Mrs. H. H. Haralson, Vicksburg, was appointed to have charge of the program for National Child Health Week. Mrs. A. Street, Vicksburg, explained the Jane Todd Crawford Memorial Work, in which each Auxiliary is to put on a program during the year.

The matter of health conditions and treatment for colored servants with venereal disease was discussed.

A luncheon meeting of the Auxiliary will be held in May after which there will be no regular meeting until September.

Ada R. Bell, Secretary.

JACKSON COUNTY.

At a regular meeting of the staff of the Jackson County Hospital held Monday evening, May 2, the following members were present: Drs. Rape, McArthur, Lander, Lockard, Eley, Gray and McIlwain.

The report of the hospital for the month of April was read and discussed.

A round table discussion of the diseases causing deaths in the hospital in April was the program, being pneumonia, puerperal eclampsia, and cardio-renal disease.

Drs. R. G. Lander and J. N. Lockard were appointed to draft a set of by-laws for the staff.

Dr. J. N. Lockard made a business trip to Baltimore recently.

Miss Emma Lou Lander, daughter of Dr. and Mrs. R. G. Lander, was a member of the 1932 graduating class of the Pascagoula High School. Dr. Lander says the hat will have to be passed if she attends college this fall.

R. B. and Fannie Pearl, students at "Ole Miss," spent a few days with their parents, Dr. and Mrs. S. B. McIlwain, being accompanied by a guest, Miss Margaret Price of Oxford, who is a niece of our good friend, Dr. W. S. Leathers.

S. B. McIlwain, County Editor.

LOWNDES COUNTY.

Dr. Ped L. Fite of the Fite hospital and Dr. Eli Staton of the Columbus Hospital staff were the local representatives of the medical profession at the meeting of the Mississippi State Medical Association. Dr. Staton read a paper in the Eye-Ear, Nose and Throat Section.

Dr. C. B. Mitchell, resident surgeon, Mississippi State College, Starkville, who recently underwent an operation for appendicitis at Fite hospital has returned to his home for convalescence.

Dr. C. D. Mitchell, superintendent of the Insane Hospital, Jackson, with his family, visited his son, Dr. C. B., while he was confined to Fite hospital following his operation for appendicitis.

At the annual May Day program which will be held in the city of Columbus, Wednesday, May 4, health induced by preventive measures will be stressed. There will be a parade through the business district at 2:30 o'clock, ending at the campus of the Barrow Memorial School with an open air program, designed to bring home to parents the value and need of giving the child every means of health protection. Honorable Birney Imes, editor of the Columbus Commercial Dispatch, will be the master of ceremonies and will introduce Dr. J. W. Dugger of the field force of the State Board of Health, who will be the speaker of the day. There will be two brass bands. A varied program will be given by the students of the city schools.

J. W. Lipscomb, County Editor.

HONORARY MEMBER.

The list of honorary members elected by the Mississippi State Medical Association at its recent meeting, and published last month, should have included the name of Dr. W. H. Aikman of Natchez. Dr. Aikman was proposed by the Homochitto Valley Medical Society and was unanimously elected.

PONTOTOC COUNTY.

The physicians of the county report health unusually good. We all have plenty of time to go fishing.

The Northeast Mississippi Medical Society meets June 14 at Amory. Let's go.

R. P. Donaldson, County Editor.

DR. ROBERT ROWLAND.

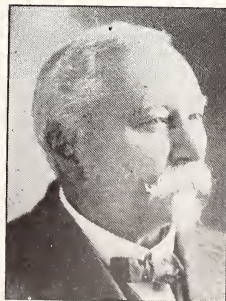
Dr. Robert Rowland, died recently at the Mississippi Tuberculosis Sanatorium, after a long illness.

Dr. Rowland was born and reared at Flora, Madison County, son of Dr. Robert W. Rowland. He received his medical degree from Tulane University and at once engaged in field work with the Mississippi State Board of Health when the activities of that organization were in their infancy.

About fifteen years ago Dr. Rowland located in Jackson for the practice of his profession, and there married Miss Mary Hamilton, daughter of the late J. S. Hamilton.

Dr. Rowland is survived by his widow, aged mother, Mrs. Robert Rowland, Sr., two brothers and one sister, the latter residents of Flora.

PAST PRESIDENTS—LEST WE FORGET.



J. W. YOUNG, M. D.
Grenada, Mississippi.

President, Mississippi State Medical Association
1910-11.

John William Young was born October 27, 1846, in what was then part of Carroll, now Montgomery County, Mississippi. His father, Samuel Hart Young, was from Albermarle County, Virginia; his mother, who was Catherine W. Small, was from Tipton County, Tennessee. Both were early settlers in Carroll County, somewhere in the thirties. Dr. Young attended the "old field schools" of that day and time up to June, 1863, when he entered the Confederate army, under Forrest. He was captured at Salem, Ala., April 1865, by Wilson's command in Forrest's last fight, was paroled at Columbus, Ga. April 10, and returned from there to Carroll County and went to work on the farm, studying medicine in his leisure moments. He entered Tulane University in the fall of 1867 and graduated from there in March 1869, settling in his native county, where he practiced until January 1890, moving thence to Grenada.

On February 20, 1873, Dr. Young married Miss Molly L. McCain of Carroll County, whose ancestors were North Carolinians and whose father was president of a female college at Columbus, Miss., somewhere in the fifties.

Dr. Young was a member of the "Ku Klux Klan" during the reconstruction period and did his dead level best to get the "negro's feet off the white man's neck." He was chairman of the Democratic Executive Committee of Carroll County from 1882 to 1890 and chairman of the County Prohibition Executive Committee. In 1888 he was delegate from his Congressional District to the Democratic National Convention; that which nominated Mr. Cleveland for his second term. He is a member of the A. M. A., of the Winona District Medical Society, of the American Association of Railway Surgeons, of the Joint Association of I. C. and Y. & M. V. and Indianapolis Southern Railway Surgeons and has been a member of the Mississippi State Medical Association since 1877. He served as delegate from the State Association to the American Medical Association in 1912 and in 1913, and was vice-president of the State Association 1906-7.

Almost totally disabled for many years, his time is now spent "reading and smoking and living in the past," largely in those days when, serving under Forrest, he "felt that he perhaps was justified in keeping well to the front, but found that it required constant concentration to keep his legs moving in the right direction." On the occasion of his eighty-third birthday he was given a dinner by the doctors of his county and presented with a meerschaum pipe, and the following year the officers of the Presbyterian Church gave a dinner in his honor and presented him with a loving cup.

TATE COUNTY.

You no doubt wonder why you never hear from Tate any more often. The truth is, we have very little to report. We have had very little sickness as a whole, to the joy of the doctors of this county, no hospitals, and very few meetings of our society for some months past. However, we had our regular meeting of the Tate County Medical Society last night, with very few present. We were to discuss whether we would continue on as a county unit or join with other counties in a larger society, but so few members were present, we decided to postpone this until a later date.

Our officers for the year are:

Dr. M. M. Powell, Coldwater, President.

Dr. L. L. Wilborn, Senatobia, Vice-President.

Dr. J. S. Eason, Coldwater, Secretary.

Dr. H. L. Murphy, Arkabutla, Delegate to Mississippi State Medical Association.

Our delegate did not get to go to the meeting of the Mississippi State Medical Association at Jackson. Our only men to attend were Drs. Smith, and Byers of Senatobia, who report a good meeting and well worth attending.

I agree with so many of our physicians in regard to our charity hospitals. We should have a change and have either county or two-county units, well equipped, and the state care for only the real charity. We cannot get a patient to our charity hospitals now very well, and not at all if it is an emergency case. We have imposed on the Memphis hospitals until we are no longer welcome as in the past, and we cannot blame them. Mississippi should take care of her own charity. The northern half of Mississippi has to pay her full share of taxes. Then why should practically all of the money spent go to the southern half for charity hospitals?

J. Sidney Eason, Secretary.

MEETING OF THE AMERICAN MEDICAL ASSOCIATION.

The following Mississippi doctors registered at the meeting of the American Medical Association in New Orleans on May 9, 10, 11, 12, and 13: G. L. Arrington, Meridian; L. B. Austin, Rosedale; C. C. Buchanan, Hattiesburg; C. E. Catchings, Woodville; L. J. Clark, Vicksburg; B. R. Clark, Lorman; L. C. Davis, Greenville; H. A. Gamble, Greenville; E. C. Gillespie, Lambert; S. L. Hollingsworth, Columbus; W. E. Johnston, Vicksburg; E. H. Jones, Vicksburg; L. S. Lippincott, Vicksburg; W. I. Marsalis, Centreville; W. W. McRae, Corinth; P. L. Mull, University; S. Myers, Vicksburg; J. E. Quidor, Vicksburg; D. G. Rafferty, Pass Christian; T. E. Ross, Jr., Hattiesburg; J. D. Simmons, Gunnison; P. E. Smith, Hattiesburg; T. J. Smith, Meridian; M. M. Snelling, Gulfport; W. L. Stallworth, Columbus; G. M. Street, Vicks-

burg; A. G. Touchstone, Meridian; N. C. Waldrep, Tichomingo; G. H. Wood, Batesville; H. L. Arnold, Meridian; G. W. Aubanks, Greenville; W. J. Anderson, Meridian; R. B. Austin, Forest; O. H. Beck, Greenville; E. N. Blount, Bassfield; R. H. Cranford, Laurel; W. W. Crawford, Hattiesburg; J. P. Culpepper, Jr., Hattiesburg; J. C. Culley, Oxford; S. E. Field, Centreville; G. E. Godman, Poplarville; A. Van Dyke Hagaman, Jackson; R. B. Harper, Fayette; A. B. Harvey, Tylertown; Paul Jackson, Liberty; S. B. McIlwain, Pascagoula; J. L. Melvin, Shuqalak; L. B. Morris, Macon; E. R. Nobles, Rosedale; W. H. Parsons, Vicksburg; C. W. Patterson, Rosedale; L. L. Polk, Purvis; D. G. Rafferty, Pass Christian; F. E. Rehfeldt, Jackson; G. M. F. Rembert, Jackson; A. R. Robertson, Pass Christian; R. E. Schwartz, Hattiesburg; W. C. Simmons, Foulke; F. F. Smith, Crystal Springs; H. P. Smith, New Augusta; I. B. Trapp, New Albany; E. A. Trudeau, Biloxi; F. L. Van Alstine, Jackson; G. W. Wallace, Biloxi; J. E. Wallace, Biloxi; P. E. Werlein, Biloxi; W. J. C. Weimers, Sanatorium; Temple Ainsworth, Jackson; C. C. Applewhite, Jackson; J. G. Archer, Greenville; O. N. Arrington, Brookhaven; T. T. Batson, Hattiesburg; S. E. Bethea, Hattiesburg; Marcus Beekman, Natchez; W. N. Blount, Laurel; J. W. Brandon, Woodville; R. H. Brumfield, McComb; J. J. Carter, Biloxi; R. H. Clark, Hattiesburg; W. J. Coleman, Meridian; F. E. Collins, Brookhaven; H. G. Cook, Hattiesburg; I. W. Cooper, Meridian; H. T. Cumming, Pace; John Darrington, Yazoo City; W. A. Dearman, Gulfport; O. G. Eubanks, Crystal Springs; H. R. Fairfax, Brookhaven; R. W. Hall, Jackson; Leonard Hart, Meridian; C. C. Hightower, Hattiesburg; J. B. Howell, Canton; D. W. Jones, Jackson; T. W. Kemmerer, Jackson; Charles LeBaron, Gulfport; L. W. Long, Jackson; J. F. Lucas, Greenville; E. P. Odeneal, Gulfport; Thomas Purser, McComb; D. A. Ratliff, Columbia; G. Russel, Jackson; R. S. Savage, Brookhaven; J. W. Shackelfield, Greenville; Charles A. Sheely, Gulfport; A. P. Smith, Bay St. Louis; R. C. Smith, Drew; E. B. Van Ness, Gulfport; W. H. Watson, Pelahatchie; B. L. Welch, Biloxi; N. C. Womack, Jackson; R. B. Zeller, Jackson.

ISSAQUENA-SHARKEY-WARREN COUNTIES MEDICAL SOCIETY.

The regular monthly meeting of the Issaquena-Sharkey-Warren Counties Medical Society was held at the Y. M. C. A., Vicksburg, May 17, with 23 members and one visitor present. Dr. H. S. Goodman, Cary, President, presided.

The Scientific program was as follows:

1. Actinomycosis in Children.—Dr. Rollin E. Cutts, Vicksburg. Discussed by Drs. W. H. Par-

sons, L. S. Lippincott, and H. S. Goodman. Dr. Cutts closed.

2. A Few Diagnostic and Prognostic Thoughts Relating to Tuberculosis.—Dr. F. M. Smith, Vicksburg. Discussed by Drs. W. G. Weston, W. H. Scudder, J. A. K. Birchett, Jr., H. H. Haralson, J. B. Benton, and S. W. Johnston. Dr. Smith closed.

3. The Heart in Thyroid Diseases.—Dr. L. J. Clark, Vicksburg. Discussed by Dr. H. S. Goodman and G. M. Street. Dr. Clark closed.

Dr. Rollin E. Cutts, Vicksburg, was unanimously elected to membership in the Society.

Dr. H. S. Goodman, for the doctors of Sharkey County and their wives, invited the Society to meet in Cary for the July meeting. The invitation was enthusiastically accepted.

The next meeting of the Society will be held at the Y. M. C. A., Vicksburg, on Tuesday, June 14, at 7 p. m. The committee in charge of the program consists of Dr. G. P. Sanderson, Vicksburg, Chairman; Dr. G. W. Gaines, Tallulah, La.; and Dr. J. S. Ewing, Vicksburg.

MARSHALL COUNTY.

Dr. J. B. Bailey has moved from Byhalia to Clyde, Texas, and will take over his brother's practice there.

Dr. D. R. Moore, Byhalia, has returned from New Orleans where he has just finished a four months' postgraduate course of study in Tulane University. This fellowship scholarship was awarded him from the Commonwealth Fund of New York, and his appointment was one of five from the State of Mississippi.

D. R. Moore, County Editor.

NURSE-O-GRAMS.

A very attractive little booklet entitled "Nurse-O-Grams," issued by the Natchez Charity Hospital, has been received. This contains the names of the faculty of the nurses' training school, the board of trustees of the hospital, a page of nursing history, and numerous other interesting items. It is a credit to the hospital and to the school.

HONOR ROLL.

The following have contributed to this issue of the Journal: F. M. Acree; O. H. Beck; Lawrence W. Long; G. C. Jarratt; H. Lowry Rush; R. M. Stepsenson; W. B. Dickens; J. S. Hickman; W. L. Montgomery; R. H. Brumfield; G. S. Bryan; T. L. Bennett; D. W. Jones; Ada R. Bell; S. B. McIlwain; J. W. Lipscomb; J. S. Ullman; R. P. Donaldson; E. F. Howard; J. Sidney Eason, D. R. Moore 21. Thank you.

BOOK REVIEWS

Diseases of the Kidney: By W. Girling Ball, F. R. C. S. (Eng.), and Geoffrey Evans, M. D. (Cantab.), F. R. C. P. (Lond.). Philadelphia, P. Blakiston's Son & Co., Inc. 1932. pp. 424.

The need of a monograph such as that presented by Ball and Evans cannot be fully appreciated until the book is read carefully. The usual thoroughness that is met with in British medical literature is presented in this work. The illustrations number 169, and are of the higher type.

The Signs and Symptoms of Renal Diseases are very thoroughly presented, and the ways and means of examining a urinary case are set forth with perfect thoroughness. Intravenous urography is properly stressed, and the renal function tests are accorded due recognition, inclusive of the phthalein test which is usually ignored by European writers.

Congenital lesions of the kidney and ureter are dealt with fully. Polycystic diseases of the kidney are stressed both in text and by excellent illustrations. Variations in the renal pelvis and ureter are given due consideration. Their attitude toward movable kidney is most sane; they reserve fixation in these cases where all supportive means of relief have failed.

The book contains 8 colored plates and several of these are well worth careful study. Pyelography is heartily endorsed by the authors as a means of more accurately determining the degree of pathology suspected in the upper urinary tract. There are 74 pages devoted to nephritis—more space by far than one usually finds in a treatise devoted primarily to surgical ailments of the kidney.

For the physician beginning the practice of urology, this work of Ball and Evans will certainly furnish an excellent reference. The general surgeon will find much in the way of references to surgical literature of value in studying obscure conditions. The only real criticism we find in the work occurs in the chapter on operative procedures on the kidney; this chapter being utterly devoid of illustrations.

H. W. E. WALTHER, M. D.

The Insanity Plea: By Edw. Huntington Williams, M. D. Baltimore, Williams & Wilkins Co. 1931. pp. 169.

Brings out a number of points which are quite familiar to all of us who have anything to do with psychiatric work in the courts, and points out a number of the more glaring shortcomings of our judicial system in dealing with the mentally-ill offender against the law. It would be a good book for all lawyers, judges or district attorneys to

read if they would thoroughly digest the subject-matter. It is clearly written more for lay consumption than for trained physicians. However, a great many physicians not trained in psychiatry could benefit materially by reading it, as it would probably bring home to them what it means to qualify as an expert in conditions which they know nothing about. It therefore has a distinct place in the medical library.

E. MCCONNELLY, M. D.

Surgical Errors and Safeguards: By Max Thorek, M. D., with a Foreword by Arthur Dean Bevan, M. D. Philadelphia, J. B. Lippincott Co. 1932. pp. 696. Price, \$10.00.

The author gives to the surgeon knowledge that one may acquire only by way of that long road called experience. He delves into the details of surgery which so many writers overlook and thereby avoids courting trouble. In reading through this book one's interest is increased in seeing that others have encountered experiences similar to one's own. The facts are ably collected and unlike other surgical textbooks this author omits what is discussed elsewhere and vice versa. The book is divided into 16 chapters and the illustrations are chosen from the texts of accredited authors. The chapter The Pancreas is very good and brings the subject up to date. The succeeding chapter of Herniæ makes no mention of congenital sliding hernia, which the reviewer thinks should be included. There are special chapters on Genito-Urinary and Gynecological surgery. The book is well compiled, it contains a great amount of material and could only have been written by a man of vast experience.

EMILE BLOCH, M. D.

Naissance, Vie et Mort de Maladies Infectieuses: By Charles Nicolle. Paris, Félix Alcan. 1930. pp. 219.

As scientifically accurate as could be desired of a book intended for the intelligent layman, the volume reviewed here deserves particular commendation because the author well accomplishes his desired end in giving in plain yet beautiful language the life history of the infectious diseases.

CHARLES MIDLO, M. D.

The Nurses Medical Lexicon: By Thomas Lathrop Stedman, A. M., M. D. New York, Wm. Wood Company. 1931. pp. 629.

The author intends this dictionary for the student nurse as well as for the experienced graduate and for others outside the nursing profession, particularly for Red Cross and public

health workers and those who are associated with physicians are dentists.

There is an appendix which deals with weights and measures, comparative temperature scales, poisons and antidotes, and time tables of infectious diseases. Illustrations are lacking, but the beautified cover will, unquestionably, delight the possessor of the useful book.

CHARLES MIDLO, M. D.

Medicine in Virginia in the Eighteenth Century: By Wyndham B. Blanton, M. D. Richmond, Garrett & Massie, Inc. 1931. pp. 449. Price, \$7.50.

On first sight of Dr. Blanton's book the reviewer was surprised that anyone could write such a big book about medicine in one state between the years 1700 and 1800. Anyone reading the book soon becomes aware that years of painstaking research have uncovered such a wealth of valuable and interesting information that the author probably felt that the necessity for condensation involved hardship. The work is an important contribution to the history of medicine in terms of its fundamental and broad phases, such as medical education, character of practice and hospitals, and at the same time it is a valuable reference book for the histories of individual physicians of the times. Some of the lists of names of physicians of the period will be skipped by the average reader but considered eagerly by the few.

The book has evidences of scholarship throughout and makes fascinating reading if one skips judiciously. It should be read widely by physicians, medical students and by laymen with interests in medicine and history. The description of medicine on the slave plantations is an especially important contribution. That Thomas Jefferson and other laymen of the period were more learned in medicine than the average physician of the time will shock many who are unaware of the low state of physic during that period. The contribution to the American history of smallpox and vaccination should be widely read by the profession and the laity. The state of medicine, surgery and hospitals during the Revolutionary War suggest that there is such a thing as progressive medicine. Dr. Blanton has discovered a number of individuals of outstanding merit and interest who have been neglected by previous historians.

R. H. TURNER, M. D.

The History of Medicine: By Bernard Dawson, M. D. (Lond.), F. R. C. S. (Eng.). New York, The Macmillan Company. 1932. pp. 160. Price \$2.50.

This little volume of one hundred and fifty pages represents an attempt on the part of the author to set forth the milestones in the present

day inheritance of medicine, in a manner which will interest and stimulate medical students. It is written in a delightful narrative style of which the following quotations is typical. "In Asia Minor, the cradle of early civilization, there is a river called the Meander which pursues a tortuous and circuitous course from its origin to the sea. It is from the name of this stream that we derive our verb 'to meander'—to wander hesitatingly over a devious and uncertain way. So were the beginnings of the science and art of medicine." Another very pleasant feature of the book is that the outstanding characters are presented as individual personalities rather than abstract figures as is usually done. Perhaps the chief fault of the whole volume lies in the fact that, in the author's attempt to achieve briefness, he has omitted much which could well have been included in a work of this kind.

BRUCE WEBSTER, M. D.

Confessio Medici: By Stephen Paget, F. R. C. S., New York, The Macmillan Company. 1931. pp. 158.

The publishers have at last awakened to the responsibility and necessity of again presenting Stephen Paget's *Confessio Medici* to the American physician. This volume, a medical classic if ever there was one, deserves a privileged place in every physician's library, alongside the works of Osler and other humane medical philosophers. The ten essays and the epilogue have much in them for every doctor, be he intern or octogenarian.

Stephen Paget writes with a beauty and logic that could well be emulated by all medico-literary physicians; his work reads with the fascination and swiftness of fine modern journalism. Particularly commendatory is his sketch on Paré.

Read *Confessio Medici*; try to leave it unfinished, if you can; see if you won't read it again and again; and then try to avoid owning it.

M. MALLOWITZ, M. D.

The Foundations of Medical History: By Sir D'Arcy Power, K. B. E., F. R. C. S. (Eng.) Baltimore, The Williams & Wilkins Company. 1931. pp. 182.

Sir D'Arcy Power will be remembered by many readers for his excellent short studies of eponyms and illnesses of renowned historical figures. In England he has been one of the outstanding leaders in propagating the study of medical history along with Osler, Allbutt, and Rolleston.

It was natural that he be invited to the Institute of Medicine at Johns Hopkins as visiting lecturer in 1930. During that time Sir D'Arcy delivered the six lectures which are embodied in this volume.

The lectures are a fine contribution to medical scholarship and should appeal to the physician in-

terested in historical research. The story of St. Bartholomew's Hospital should be of interest to all physicians.

M. MALLOWITZ, M. D.

Text-book of Clinical Neurology: By Israel S. Wchsler, M. D. 2d ed. rev. Philadelphia, W. B. Saunders Co. 1931. pp. 759.

The second edition of this excellent work on clinical neurology, divided into five parts, each complete in itself, has made its appearance and is filling a long felt want in the real of neurophysiology.

In the parts necessary, there has been revisions made, in others an elaboration, keeping in mind the trends of scientific medical progress.

It is essentially necessary that each neurologist familiarize himself with this text book. It likewise would make substantial collateral reading for the general practitioner and other physicians who wish to keep abreast of the times.

WALTER J. OTIS, M. D.

Gynecology and Urology for Nurses: By Samuel S. Rosenfeld, M. D., F. A. C.S. New York, Wm. Wood Company. 1931. pp. 230.

In this book the author has attempted to emphasize what the nurse needs most to know so as to attend intelligently the gynecological patient. He has well succeeded in his endeavor. Six succinct accounts of the anatomy, physiology, and pathology of the femal genito-urinary system are followed by well organized descriptions of the nurse's side of examination, non-operative measures, and operative procedures. The various instrument sets for gynecological operation are pictured. The illustrations are well chosen, and in large part do illustrate.

CHARLES MIDLO, M. D.

Walter Bradford Cannon: Exercises celebrating 25 years as George Higginson Professor of Physiology, Oct. 15, 1931. Cambridge, Harvard Univ. Pr. 1932. Por. pp. 94.

The exercises celebrating Dr. Cannon's 25 years as Professor of Physiology at Harvard comprise interesting and entertaining papers by Drs. Edsall Alvarez, Howell and Lusk with reply by Dr. Cannon. His Who's Who and Bibliography are appended.

I. L. ROBBINS, M. D.

Intracranial Tumors: Notes upon a series of two thousand verified cases with surgical mortality percentages pertaining thereto: By Harvey Cushing. Springfield, Ill., Chas. C. Thomas. 1932. pp. 150. Price, \$5.00.

More than once the writer has been set to the task of "reviewing" a book or paper from the

masterful pen of Dr. Cushing; a difficult task indeed as the reviewer finds practically no chaff to separate from the wheat. As concerns style, force and diction it need only to be pointed out that the author is distinguished, uniquely among medical men, by being a winner of the Pulitzer Prize in Letters.

The present book is small (147 pages) but encompassed therein is data resulting from thirty years of intensive study, most of which was original, based upon a series of two thousand verified intracranial tumors, practically all of which were true neoplasms. The foundation of the work is histology, normal and otherwise, and the discussions are grouped about the cytology of the various lesions. Examination, diagnosis, localization and surgical technic receive scant attention. The tumors are grouped and discussed under twelve divisions; gliomas, pituitary adenomas, meningiomas, acoustic, congenital metastatic and invasive, granulomatous and blood vessel tumors, primary sarcomas, papillomas of the choroid plexus and miscellaneous tumors. There are chapters on Primary Case Subdivisions and Operative Statistics in General.

The gliomas comprise the largest group, 862, 42.6 per cent, and naturally merit the greatest consideration; approximately one-half of the book is devoted to gliomas. The original classification of Bailey and Cushing has been reduced to ten subdivisions, some few of which are so rare as to be surgical curiosities. As tumors are being restudied they are constantly being shifted from one division to another so the table of incidence is in a state of flux. Even with the simplification which has taken place the clinical problem remains for there is little clinical difference between an ependyoma and an ependymo-blastoma whilst astrocytomas and medulloblastomas act so differently when situated above and below the tentorium as almost to compose two clinical entities although identical histologically. Each subdivision of the glioma group is discussed independently as to its cytology and life history with particular reference to its rate of growth and its tendency to recur. A few short case reports are given as examples of each. An exact diagnosis is of utmost importance as concerns prognosis.

Of the pituitary adenomas there were 360. For many years the author favored the transsphoidal route but in the last years has gradually swung to an approach from above. There is little difference in the mortality statistics of the two routes but he states "there can be no comparison between the exactitude of the two procedures" and bleeding is more easily controlled from above than from below. He confidentially looks forward to a mortality of 1 or 2 per cent.

A word of warning is sounded regarding the craniopharyngiomas which "offer the most baffling problem which confronts the neurosurgeon." At present they are practically inoperable. The same plan is followed in the discussion of each group and all chapters contain many valuable hints to surgeons. The mortality statistics are little short of inspiring for they show what may be accomplished by increasing skill and technic.

The amount of information contained in so small a book is positively astounding. Certainly all who are interested in intracranial problems will desire to read this book; having read it they will desire to possess it. The price is five dollars.

GILBERT ANDERSON, M. D.

International Studies on the Relation Between the Private and Official Practice of Medicine, With Special Reference to the Prevention of Disease: Conducted for the Milbank Memorial Fund: By Sir Arthur Newsholme, K. C. B., M. D., F. R. C. P. Vol. III. Baltimore, Williams & Wilkins Co. 1931. pp. 558.

This volume of the series covers the practice of official and private medicine in England and Wales, Scotland and Ireland.

Sir Arthur continues to give his exhaustive studies in his own interesting style and presents us with every phase of medical service in those countries to which we intuitively turn for light on our own medical problems.

The workings of the National Insurance Act in England and Wales in particular is of special interest to us in America, and we find here a comprehensive resume of its application. Sir Arthur presents no evidence of prejudice or bias in himself in discussing his subject, but on the contrary, freely gives of the opinions of others. We are thereby assured that in referring to this work that we have a true exposition of the state of medical practice in those countries.

Everyone interested in State Medicine should read this and the preceding volumes. Here are laid down precedents to which we can turn in marking our own future, and whether they be good or bad, we cannot fall back on ignorance as our excuse, with such an available array of facts as Sir Arthur has placed before us.

W. H. PERKINS, M. D.

Psyllium Seed—The Latest Laxative: By Joseph F. Montague, M. D. New York, The Montague Hospital for Intestinal Ailments. 1932. pp. 170.

Horatio Alger's most astute tale pales into anemic insignificance next the colorful romance of the fleawort, or the semen psyllii of the psyllium plantago plant. Respendent, triumphant, has been its rise from a weed to the most fashionable of

present day cathartics. Formerly grown wild in the field of provincial France, especially near Avignon, it was regarded with contempt, considered a parasite. The lowliest peasants trampled on the "weeds" that one day would bring wealth to their community, joy to the obstipated.

For several centuries, however, these same peasants have been aware of certain therapeutic uses for psyllium seed. They believed it to be "emollient, soothing, relaxing, etc., useful in combating inflammation, facilitating the excretion of urine, intestinal evacuation and the control of all conditions where there is heat, irritation, spasm." But the path to glory is long and the climb to fame is steep and filled with obstacles so it was many years before the virtue of psyllium seed as a cathartic par excellence was universally recognized. Because the seeds are small, smooth, slippery, of a shining brown color, of an oblong shape, someone fancied a resemblance to fleas, hence the name. This verminous appellation proved to be a tremendous obstacle. Who wanted to eat anything that resembled and reminded one of fleas, complained the eternally aesthetic French. The name "graines de longue vie" was then applied in an attempt to counteract the objection. Gradual was the rise to universal fame and popularity but in 1916 or thereabouts the knowledge of the virtue of psyllium began to spread like wild fire. Like France, Germany, India, Spain, England and Italy began to cultivate the plantago plant and "the rest is history." When France began to export the seed to America the demand exceeded the supply. The industry of psyllium cultivation reached its commercial Utopia. In Provence in 1916, 178 pounds of the seed were marketed. In 1931, 1,763,696 pounds were marketed. Prosperity smiled on Provence and Avignon and the surrounding districts. The fleawort was sitting on the top of the world.

How many precious subplots must there be to this romance—peasant families traditionally impoverished become suddenly affluent; rural communities basking in the shadow of the Alps, villages slumbering in innocuous desuetude become suddenly alive with bartering agents leasing lands, bidding for a product formerly useless; the triumph of human labor over the machine age (psyllium requires hand cultivation)—Oh what a story Floyd Gibbons could have made of it!

The superiority of psyllium seed rests in the following claims. It has the bulk-giving qualities of bran without the undesirable irritative effect upon the intestinal mucosa and the danger of fecal impaction. When ingested with proper amounts of water psyllium seed swells and increases the size of the fecal mass, gives off freely its mucilaginous substance which has lubricating properties fully equal to oil, with none of oil's dis-

advantages (leakage, seepage). Unlike oil and bran it is digestible; *i. e.*, it is acted upon by digestive enzymes thus becoming an integral part of the fecal mass instead of surrounding it as does oil.

Winchellesque is the dedication:

To the Universal Ailment—Constipation.

To the Universal Habit—Taking Laxatives.

To the Universal Victim—You and you and you.

MAURICE SULLIVAN, M. D.

Italian Medicine: By Arturo Castiglioni. New York, Paul B. Hoeber, Inc. 1932. pp. 134. (Clio Medica, Vol. 6.)

The development of Italian medicine begins with the great schools of Southern Italy, especially that of Empedocles of Agrigento in the 5th century B. C. Born of the first philosophic school of Greece, it originated the doctrine of humoral theory and critical days which later dominated Hippocratic medicine. Greatly influenced by the Greeks were the Romans, but in turn the Romans codified in systematic fashion the Greek doctrines, adopted hygienic legislation based on Egyptian and Babylonian regulations and finally made of the profession of a special class. Doctors ranked as high dignitaries in the empire. With the advent of Christianity medicine lost its important place. "It withdrew into the shadow of the church and became under Christian dominance a dogmatic medicine in which the first and most important point was faith."

Italian medicine, as such, had its real beginning in the 10th century. Typical of Italian thought at that time were their tendency to free themselves from scholastic dogmatism, their passion for classical studies and experimental research, and the orientation and regulation of medical study. Salerno and Monte Cassino flourished, influenced by Greek wisdom, but likewise still preserving the Latin influence. The yoke of ecclesiastical laws was thrown off and lay characteristics prevailed in both schools. During the 13th century there was an unending struggle between scholastic medicine and new ideas. The birth of the plastic and graphic arts popularized the necessity of the study of the body, furthered anatomy's cause. In the 15th century Italy became the center of anatomy and the general study of medicine. Galileo's discoveries had made research assume more direction for the experimental sciences. The 16th century found Italy apathetic to the adoption of closed, rigid systems and mysticism and the two centuries that followed were characterized by the birth of sound reasoning headed fast toward clinical medicine. In the past two centuries Italy achieved its present enviable degree of perfection.

Long is Italy's list of medico immortals. Prominently mentioned herein are the following:

Burgognone, first to apply antiseptics to infected wounds (he used wine) first to employ an anesthetic in general surgery (he used narcotic soaked sponges); Leonarda da Vinci and Michaelangelo, exponents of plastic and graphic arts, should be included; Vesalius, whom Portal calls "the greatest of all heroes;" Falloppio and Eustachia, discoverers each of tubes; Benivieni, Ingrassia, Colombo, Aranzia, pathological anatomy artists; Fracastorius, author of "Syphiles sive Morbus Gallicus"; Malpighi, founder of histology; Ramazzini, founder of professional hygiene; Morgagni, father of modern pathology; Scarpa, anatomist of triangle fame; Spallanzani, noted physiologist who made important observations on fecundation (in frogs); Chiarugo, first to reform the care of psychiatric patients; Flaiani, co-discoverer of exophthalmic goitre; Casanova, king of charlatans; Rolando, neuro-anatomist; Rusconi, embryologist who studied the process of segmentation; Golgi, famed histologist; Vassale, who described the cause of pancreatic diabetes; Grassi, first to demonstrate the life cycle of the malaria plasmodia; Castellani, who isolated the organism of sleeping sickness; Forlanini, who first proposed artificial pneumothorax for pulmonary tuberculosis; Porro, exponent of Cesarean section and uterine amputation; Ducrey, who discovered the streptococcus of venereal ulcers; Castiglioni and Capparoni, famous historians, and many others.

The author of this primer of Italian medicine is Arturo Castiglioni of the Royal University in Padua. It is translated by resourceful Dr. Krumbhaar, whose versatility apparently knows no bounds. What a pity it is that Dr. Krumbhaar restrained himself from including more of his splendid footnotes. Priceless note: "If, as some think, Fracastorius used this spelling (syphilis) for Ovid's Sipylus, the son of Niobe, we have one of the most eminent medical writers of the Renaissance gliding to immortality on a barbarism."

MAURICE SULLIVAN, M. D.

PUBLICATIONS RECEIVED.

The William & Wilkins Company, Baltimore: Primary Carcinoma of the Lung, by B. M. Fried, M. D. Microscopic Slide Precipitation Tests for the Diagnosis and Exclusion of Syphilis, by B. S. Kline, A. B., M. D.

Paul B. Hoeber, Inc., New York: Practical Treatment of Skin Diseases, by Edward Ahlswede, M. D.

Harvard University Press, Cambridge: The Youngest of the Family, by Joseph Garland, M. D.

J. W. Stacey, Inc., San Francisco: California's Medical Story, by Henry Harris, M. D.

RETURN TO the circulation desk of any
University of California Library
or to the

NORTHERN REGIONAL LIBRARY FACILITY
Bldg. 400, Richmond Field Station
University of California
Richmond, CA 94804-4698

ALL BOOKS MAY BE RECALLED AFTER 7 DAYS
2-month loans may be renewed by calling
(415) 642-6753

1-year loans may be recharged by bringing books
to NRLF

Renewals and recharges may be made 4 days
prior to due date

DUE AS STAMPED BELOW

APR 29 1991

NOV 04 1998

RETURNED

SEP 20 1986

NOV 04 1988

9 1986

1931- surgical journal

1932

28959

Charles, Lenora	NOV 17 1932	NOV 21 1932
-----------------	-------------	-------------

APR 17 1935

Martin
l. De l. MAR 5 1966

Thurman

OCT 2 - 1937

NOV 1 1964

Prüfung 2019

28959

- SCHOOL LIBRARY

